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Studies of Intercollegiate Athletics

Report No. 1: Summary Results from the 1987-88 National Study of Intercollegiate Athletes

November 1988

American Institutes for Research
Washington, DC • Palo Alto, CA • Bedford, MA • Watertown, MA

Center for the Study of Athletics • Palo Alto, CA

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Preface

This is the first in a series of reports summarizing the results of the 1987-88 National Study of Intercollegiate Athletes conducted by the American Institutes for Research (AIR) for the Presidents Commission of the National Collegiate Athletic Association (NCAA). The purpose of the study was to investigate the effects of participation in intercollegiate athletics on student-athletes.

The first section of this report is an Executive Summary that gives an overview of the methodology and overall results of the study. The remainder of the report is divided into ten chapters and an Appendix. Chapter 1 presents an overview of the experiences of student-athletes and then describes why and how the study was performed. It closes with plans for further inquiries and some explanations that will help in understanding the analyses in this report.

Chapter 2 explains what was learned about student-athletes' preparation and readiness for college. Chapter 3 describes how student-athletes are recruited and how they perceive the process, while Chapter 4 describes their participation in intercollegiate athletics, and Chapter 5, their academic performance. Chapter 6 describes the student-athletes' health and personal development, and Chapter 7 discusses their social activities and interpersonal development. Chapter 8 describes profiles of student-athletes with multiple problems and relates these profiles to characteristics of the institutions these student-athletes attend. Chapter 9 sums up the experiences of student-athletes and draws some conclusions about their experiences. Chapter 10 presents some technical notes about the methodology. Measures of the strength of association and tests of significance for the comparisons in some of the figures in the report are presented in the Appendix.

Throughout this report, we examine four groups of college students: (1) student-athletes who participate in any intercollegiate sport, (2) intercollegiate football and basketball players, (3) student-athletes who participate in intercollegiate sports other than football and basketball, and (4) extracurricular students who are not intercollegiate athletes but do participate extensively in extracurricular activities.

This report does not present comparisons or analyze results separately by gender or by race. Future reports will focus on the experiences of black and female student-athletes. By design, this study included only students who participate in intercollegiate athletics or spend significant amounts of time in other extracurricular activities. We did not include the full range of undergraduate students on the campuses.

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Report No. 1: Summary Results from the 1987-88 National Study of Intercollegiate Athletes

Executive Summary

November 1988

On June 3, 1987, the Presidents Commission of the National Collegiate Athletic Association (NCAA) issued a policy paper titled *Agenda for Reform*. The NCAA Presidents Commission, consisting of 44 presidents and chancellors of NCAA member institutions, was established in 1984 as the first defined, on-going forum for chief executive officers within the NCAA structure. The policy paper issued by the Commission described the rationale for an 18-month national forum on the proper role of intercollegiate athletics within higher education. To support the forum, the Presidents Commission sponsored a study to identify the effects of participation in intercollegiate athletics on student-athletes. The American Institutes for Research (AIR) was contracted to conduct the study, beginning in November 1987.

In the *Agenda for Reform*, the Presidents Commission listed eight broad sets of questions to be discussed during the national forum. The AIR study was designed to address the first four sets of these questions, as follows:

1. How do the experiences of college or university life of student-athletes compare with those of other students who devote a great deal of time to a particular extracurricular activity?

2. How do the experiences of student-athletes differ depending upon whether one is a participant in big-time sports or in sports that are not given a heavy emphasis?

3. How do the experiences of student-athletes compare with those of other students in terms of courses taken, classes attended, time spent on or off campus, and tutoring received? How do they feel about and evaluate their experiences? Do they see themselves as beneficiaries of fine programs, or as exploited? How do they personally experience the balance between athletics and academics in their daily lives?

4. How are student-athletes recruited? How do recruitment activities differ depending upon the intensity of the athletic program? What are the differences in test scores and grade-point averages between athletes and other students? How do recruited students personally experience the process of choice of college and university and the role of athletic recruitment in that process?

Report No. 1: *Summary Results from the 1987-88 National Study of Intercollegiate Athletes* compares, for NCAA Division I institutions, the college and university experiences of student-athletes in football and basketball, student-athletes in other sports, and other students in time-demanding extracurricular activities. For the most part, the comparisons are based on student reports of their experiences and how they feel about them. In the comparisons, the variables of gender and race have been statistically controlled so that they are not confounding the results. These variables are, of course, of great interest in their own right. Future reports will address issues related to gender and race differences in the quality of college experience. Additional reports are also planned to examine in greater depth the educational experiences of student-athletes and their personal opinions of the college experience.

Description of the 1987-88 national study

The target population for the 1987-88 National Study of Intercollegiate Athletes was all full-time students at Division I colleges and universities who participated in intercollegiate athletics at the Division I level, as well as full-time students who participated extensively in other extracurricular activities on those same campuses. AIR sampled from the target population in two stages—first at the institution level and then at the student level.

AIR sampled 42 institutions at random from within the subdivision and conference structure of Division I to reflect the variation in location, size, and public or private status of all 291 Division I colleges and universities. Full-time student-athletes and full-time comparison students were then selected at the 42 campuses in sufficient numbers to perform appropriate statistical analyses.

At each of the 42 institutions sampled, AIR selected a primary sample of 80 student-athletes and 30 comparison students who were not student-athletes. The student-athletes were selected as follows:

- 30 football players at random from a list of all players on the squad, about one-third freshmen and the remainder other class members
- 10 men's basketball players at random from a list of all players on the squad
- 10 women's basketball players at random from a list of all players on the squad
- 10 men who had athletic grants in other sports, at random from lists of all grant recipients in intercollegiate sports other than football or basketball
- 10 women who had athletic grants in other sports, at random from lists of all grant recipients in intercollegiate sports other than basketball

- 10 participants without athletic grants in other sports, at random from lists of all participants in intercollegiate sports other than football and basketball

AIR made adjustments in the student-athlete sample at the institutions that did not have football or women's basketball, or did not compete in those sports at the Division I level.

Twenty students extensively involved in extracurricular activities other than intercollegiate athletics were selected from each institution to form one comparison group. These extracurricular students were selected at random from lists of students who participated extensively in activities such as band or orchestra, drama or other performing arts, student newspaper or radio, or campus work-study programs. The selections were made to ensure representation of freshmen and students from the other classes, and as nearly as possible, equal representation of male, female, black, and nonblack students. By sampling students, who like college athletes, participate in a nonacademic activity involving extensive time commitments, any differences between student-athletes and comparison students would not be due solely to differences in time spent in nonacademic activities. In addition, a sample of black students was selected at random from lists of full-time undergraduates who were neither student-athletes nor extracurricular students. A future report will focus on the experiences of black student-athletes, using the sample of black students as one comparison.

Methods for data collection

AIR designed a questionnaire to cover a variety of topics, including aspirations and expectations, academic preparation and performance, recruitment experiences, personal and interpersonal experiences while in college, and physical and emotional health. Comparable forms of the questionnaire were designed for student-athletes, extracurricular students, and the sample of black students.

All data were collected by AIR staff who worked at the 42 campuses during the period from March to June 1988. Student-athletes and comparison students were assembled in small groups (typically five or fewer) to complete the questionnaires. Only the students and AIR data collectors were present during the data collection sessions, which typically lasted about 50 minutes.

AIR staff worked with liaison personnel at each institution. However, AIR staff completely controlled the data collection process. A specially designed system of identification codes was used to guarantee confidentiality.

AIR collected usable questionnaires from a total of 4,083 student-athletes and comparison students, including 3,210 primary selections (75% of the 4,259 drawn for the national sample) and 873 alternate selections. Demographic data describing most of the 1,049 primary nonrespondents have been collected from each of the participating institutions, and a follow-up study of a randomly selected subsample of nonrespondents is currently underway. Initial results indicate very small differences between respondents and nonrespondents (e.g., college grade-point averages of 2.66 for respondents and 2.54 for nonrespondents).

At the same time students completed questionnaires, AIR asked for written permission to obtain copies of their high school and college transcripts and ACT or SAT scores. These data, some of which are reported here, comprise a rich database on the academic performance of intercollegiate athletes and will be examined further in subsequent reports.

Scientific Advisory Committee

To help with design, procedural, and analysis issues during the national study, AIR assembled an eight-member Scientific Advisory Committee of technical experts in several areas relevant to the research. The committee's role has been to review and comment on all aspects of the planning and implementation of the study, including the methodology, data collection instruments, analysis plans, and final conclusions. This group met four times during the study and will continue to work closely with AIR and the NCAA in planning and carrying out further studies using the national data now available.

The committee members are

David Goslin
President
American Institutes for Research
(Chair of the Committee)

George Bohrnstedt
Vice-President
American Institutes for Research
(Formerly Professor of Sociology,
Indiana University)

Joan Girgus
Professor of Psychology
Princeton University

James Jackson
Professor of Psychology
University of Michigan

Gardner Lindzey
President
Center for Advanced Study
in the Behavioral Sciences

Frederick Mosteller
Professor of Statistics
Harvard University

John Nesselroade Professor of Human Development Pennsylvania State University	John Taylor Director Learning and Instruction Division U.S. Dept. of Education

Confidentiality

The American Institutes for Research, with the approval of the NCAA Presidents Commission, has taken systematic precautions throughout this project to protect the identities of all students and institutions who participated in the research. Under no circumstances will AIR release the names of participants or any data that will allow identification of specific individuals or institutions.

Key Findings

The summary results from the 1987-88 National Study of Intercollegiate Athletes both confirm and challenge stereotypes about college athletes and intercollegiate athletics. The picture of the student-athlete that emerges is a complex one. This description of key findings is organized into seven sections, beginning with the college preparation of students and ending with a section on student-athletes with multiple problems. An eighth section synthesizes these findings and addresses directly the four sets of questions posed by the Presidents Commission.

Most of the descriptions and comparisons that follow are based on what students reported in their questionnaires. Comparisons of scores on college entrance examinations are based on transcripts and institutional reports, and comparison of college courses and college grade-point averages are based on transcripts.

Preparation for college and career aspirations

College football and basketball players score lower on the American College Testing (ACT) Assessment Program and on the Scholastic Aptitude Test (SAT) than do students who are extensively involved in other types of extracurricular activities. Student-athletes in intercollegiate sports other than football and basketball score between the two groups (see Figures 1 and 2).

The pattern for grade-point averages in high school parallels that of the test scores: college football and basketball players report a B average, which is about a quarter of a grade lower than extracurricular students report. Student-athletes in other intercollegiate sports report scores that fall between the other two groups.

Student-athletes are just as likely as students in extracurricular activities to say that, at the time they enrolled, earning a college degree was "of greatest importance" or "important" (see Figure 3). Student-athletes show considerably more interest than extracurricular students in business and business management degrees and somewhat less interest in the liberal arts, sciences, and engineering fields. Physical education is named by only about 6% of student-athletes as the field of their intended degree at the time they enrolled in college (see Table 1).

Recruitment

Colleges and universities use more intense recruitment activities—such as visits to homes and paid visits to campuses—with student-athletes than they do with extracurricular students (see Figure 4). Consequently, student-athletes feel more intense pressure during recruitment than do extracurricular students (see Figure 5). Football and basketball players experience far more of the intense recruitment activities and recruitment pressure than do other student-athletes. Grant-recipients in other sports experience more of the intense recruitment activities and feel more intense pressure during recruitment than do nongrant-recipients.

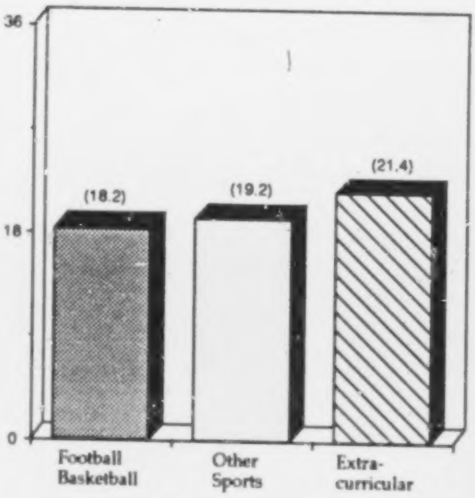

Figure 1. Mean ACT composite scores

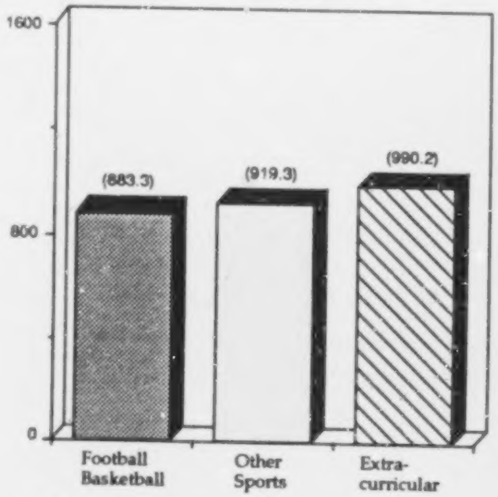

Figure 2. Mean SAT composite scores

Despite these reported pressures, more than 75% of student-athletes report that recruitment helped them in making the right college choice (see Figure 6). Only a small number of student-athletes report that the information they received during recruitment caused them serious problems (3% of football and basketball players and 2% of other student-athletes who receive athletic grants).

Participation in athletics and financial aid

Aspirations and expectations. Approximately 23% of football and basketball players and 30% of grant-recipients in other sports report that, at the time they enrolled in college, they expected to become professional athletes. Approximately 17% of football and basketball players and 24% of grant-recipients in other sports report that, both at the time they enrolled and now (at the time of the survey), they expect to become professional athletes. For seniors only, approximately 21% of football and basketball players and 25% of grant-recipients in other sports say they expected to become professional athletes at the time they enrolled and still expect to at the time of the survey.

Time demands. The time demands on both student-athletes and extracurricular students are extensive during the period when sports and extracurricular activities are in season (see Table 2). Student-athletes spend more time in their sports, however, than extracurricular students do in their activities. Football and

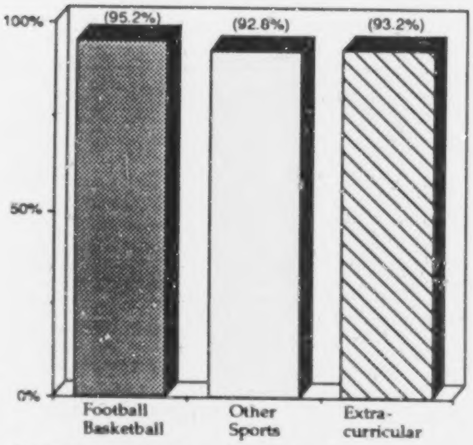

Figure 3. Students Reporting Getting a Degree as "Of Greatest Importance" or "Important" at Enrollment

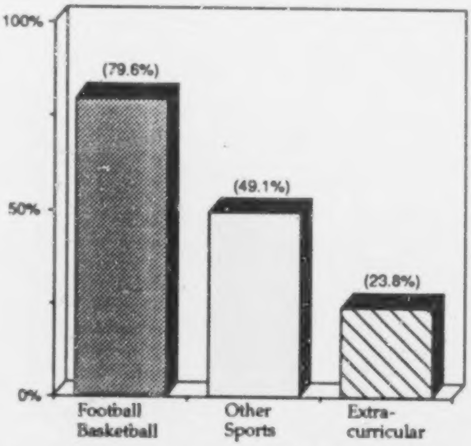

Figure 4. Students Reporting Paid Visits to Institutions

Table 1.
Intended Degree at Enrollment

	Percent		
	Football Basketball	Other Sports	Extra-curricular
Business	37.0	38.6	19.5
Engineering	11.3	12.4	16.9
Social Science	11.1	10.1	8.0
Professional Occupations	11.0	8.2	6.4
Communications	8.3	5.2	8.4
Physical Education	5.5	7.1	.1
Education	4.5	4.1	9.8
Computer/Information Sciences	4.1	4.5	5.3
Biological Sciences	3.1	3.9	7.9
Arts and Humanities	2.6	1.9	13.1
Physical Sciences	1.3	4.0	4.7

Table 2.
Time Demands and Use of Personal Time

	In Season			Out of Season		
Number of hours per week spent in:	Football Basketball	Other Sports	Extra-curricular	Football Basketball	Other Sports	Extra-curricular
Main sport/activity	30.0	24.6	20.4	17.9	15.6	11.4
Class and labs	13.7	14.0	15.0	14.4	14.2	15.3
Preparing for class	11.6	13.2	12.6	14.6	15.3	14.6
Social activities	9.7	11.4	10.6	13.4	14.1	12.7
Relaxing alone	9.2	11.1	8.3	11.1	12.8	10.0
Extracurricular activities (except main one)	3.7	4.3	6.2	6.4	6.7	6.9
Number of Classes Missed	2.0	2.2	1.2	1.1	1.1	.8

basketball players spend approximately 30 hours per week in their sports when they are in season—more time than they spend preparing for and attending class combined. They also report missing about two classes per week. While extracurricular students spend less time in their activities than student-athletes, they too spend more time in their activities than they do either in preparing for classes or attending classes, and these students report they miss about one class per week.

During the off-season, the time demands on student-athletes and comparison students are reduced, as shown in Table 2. Football and basketball players and other student-athletes continue to spend more time in their sports than they do either in preparing for or attending class. Extracurricular students spend less time in their activities than student-athletes do during the off-season. Both student-athletes and extracurricular students report they miss about one class per week when out of season.

There are no reliable differences in the average number of hours per week freshman redshirts (i.e., freshmen who only practice with the varsity) spend in their sports as compared to

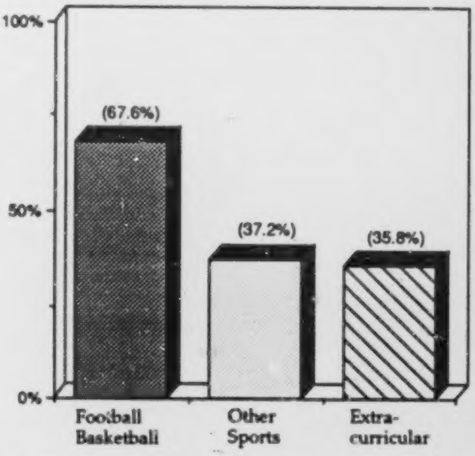

Figure 5. Students Reporting "Extremely Intense" or "Intense" Recruitment Pressure

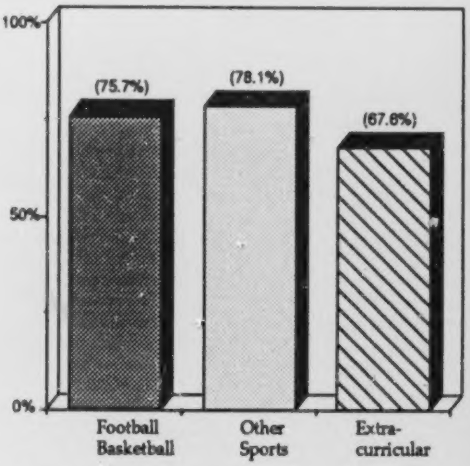

Figure 6. Students Reporting Recruitment Helped in College Selection

freshman student-athletes who compete (about 25 hours for each group when in season). In season, freshmen redshirts and active competitors spend approximately five hours per week less in their sports than do other class members. In short, freshmen are working almost as long in their sports as other student-athletes, whether they are redshirts or players on the roster.

Relations with coaches. Seventy-two percent of football and basketball players and 70% of other student-athletes report they are satisfied with the way their coaches have helped them improve as athletes. In contrast, 88% of extracurricular students report themselves satisfied with the way their activity directors have helped them improve in their extracurricular activities (see Figure 7).

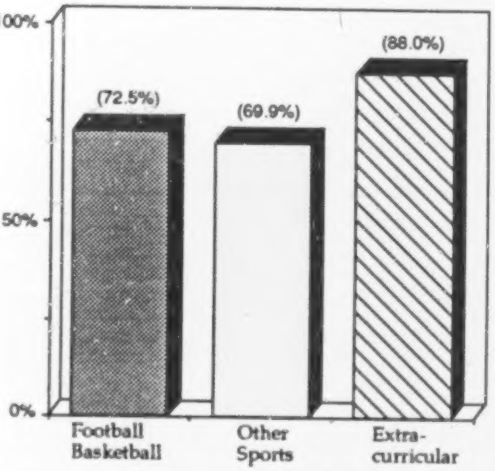

Figure 7. Students Reporting Satisfaction with How Well Coaches/Directors Help Them Perform

Student-athletes and extracurricular students have somewhat different views on the importance of coaches and activity directors helping them with problems and responsibilities outside of their sports or activities (see Table 3). For example, while both student-athletes and extracurricular students feel it is important for coaches and activity directors to encourage good performance in class, this is rated as being of the greatest importance by more of the student-athletes. Similarly, student-athletes feel more strongly that it is important for coaches to keep track of their performance in courses. When asked to provide an overall rating of the performance of their coaches or activity directors in these areas, 83% of football and basketball players and 81% of other stu-

Table 3.
Relationships with Coaches/Directors

Importance for Coaches/Directors to Know or Do the Following:	Percent responding "Of Greatest Importance"		
	Football Basketball	Other Sports	Extra-curricular
Encourage good performance in courses	70.5	69.5	55.9
Keep track of performance in courses	62.2	57.5	37.4
Listen to non-sport/non-activity problems	42.6	38.8	27.7
Understand what campus life is like	41.5	40.4	54.4
Help with health problems	39.6	40.9	22.0

dent-athletes report their coaches are doing fairly well or better. About 28% of football and basketball players, 24% of other student-athletes, and 24% of extracurricular students report their coaches or activity directors are performing excellently (see Figure 8).

Financial aid. There are substantial differences in the numbers of student-athletes and comparison students who receive grants tied directly to participation in sports or extracurricular activities. Most student-athletes report they have received a partial or full athletic grant at some point in college—almost 74% of football and basketball players and 66% of the student-athletes in other sports, as compared to about 25% of extracurricular students who report ever having received an activity grant. About 60% of football and basketball players and 19% of other student-athletes report they currently receive full athletic grants that cover the costs of tuition, room and board, and related educational expenses.

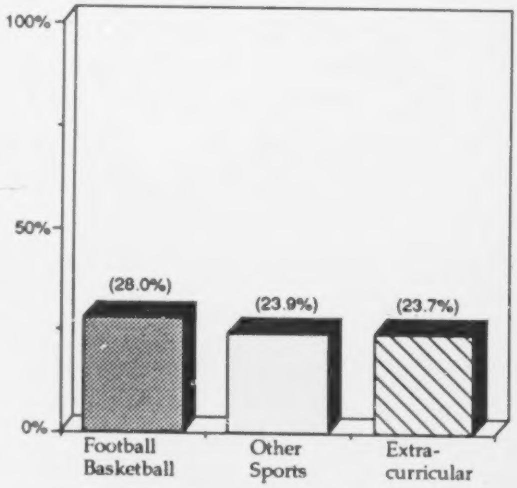

Figure 8. Students Reporting Coaches/Directors Doing an Excellent Job Helping in Areas Outside Their Main Activity

In spite of these sizeable differences, student-athletes report having less money each month after tuition and other education-related expenses are paid (see Table 4). Football and basketball players in particular, report about $30 less each month than do extracurricular students. In answer to whether they feel these monthly amounts for personal expenses are adequate, 58% of football and basketball players say "no," compared to 42% of other student-athletes and extracurricular students. Football and basketball players, however, report it is easier for them to obtain money for personal ex-

Table 4.
Finances

	Football Basketball	Other Sports	Extra-curricular
About how much money do you have per month after expenses for your room, food, tuition, fees, and course-related books?	$82	$100	$114
Percent saying this amount is adequate	42.1	58.0	57.8

penses. For example, they report it is easier for them as college athletes to get summer jobs (see Figure 9) and part-time jobs.

Academic performance

Courses taken and majors. There is a tendency for student-athletes, especially football and basketball players, to be in classes with other student-athletes (see Figure 10), but among courses taken by student-athletes, about 55% are also taken by extracurricular students. The reported current majors of both groups of students are similar to the majors they say they were interested in at the time they enrolled. Student-athletes are more likely to report current majors in business and business management, professional occupations (e.g., architecture, home economics), and physical education (only 5% plan majors in physical education), and less likely than extracurricular students to report majors in the arts and humanities, education, and engineering. Football and basketball players are least likely to major in biological, physical, or computer sciences.

Grade-point average and course performance. Student-athletes, on average, have lower college grade-point averages (GPAs) than do extracurricular students. Among student-athletes, football and basketball players have, on average, the lowest GPAs (see Figure 11).

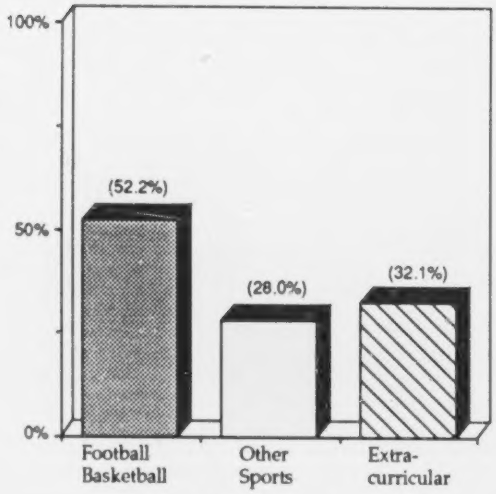

Figure 9. Students Reporting it is Easier to Get a Summer Job

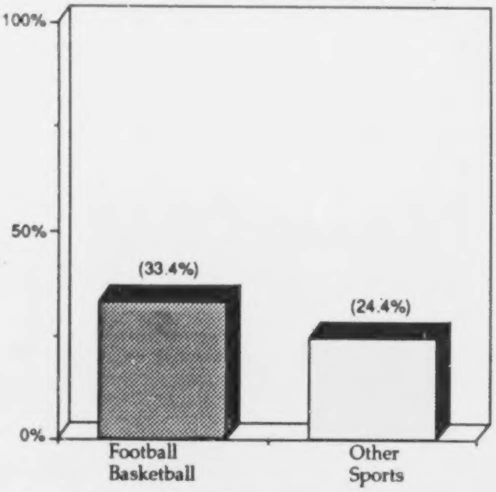

Figure 10. Student-Athletes Reporting They Are Usually in Courses with Many Student-Athletes

At the same time, comparable numbers of student-athletes and extracurricular students say they have ever repeated courses, received incompletes, and been on academic probation. The percentages of football and basketball players, student-athletes in other sports, and extracurricular students who report they have ever repeated courses in their college careers are shown in Figure 12.

Although these three measures of academic performance show no reliable differences between student-athletes and comparison students, there are consistent links between them and the more or less successfully-competitive football and basketball programs. Specifically, football and basketball players in more successfully-competitive programs are more likely than those in less successfully-competitive programs to have (1) found many courses too difficult, (2) received incompletes, and (3) been on academic probation. For example, 34% of football and basketball players in more successfully-competitive programs have been on academic probation, as compared to 26% of football and basketball players in less successfully-competitive programs (see Figure 13).

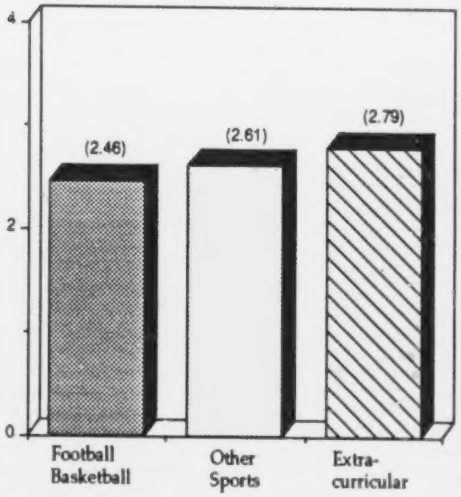

Figure 11. Cumulative Grade-Point Average

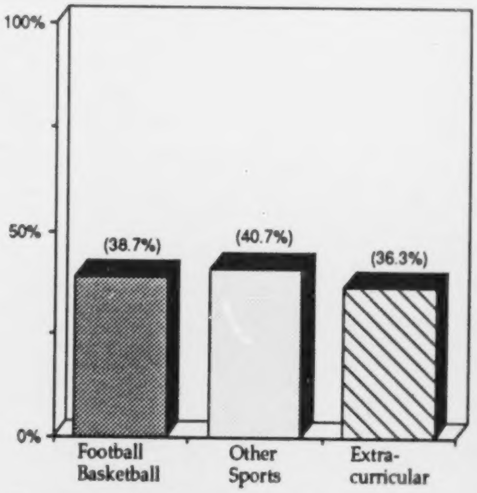

Figure 12. Students Reporting Repeating One or More Courses

Use of educational resources and perceived academic demands. Many student-athletes, especially football and basketball players, take academic skill-building courses at college. More student-athletes take these courses than do extracurricular students, and more football and basketball players take these courses than student-athletes in other sports (see Figure 14).

Student-athletes also report that it is easier for them as athletes to get help in their courses—help from teaching assistants, tutors, and academic counselors. Despite the greater availability of these educational aids, however, student-athletes believe that it is more difficult for them as athletes to perform well academically. For example, student-athletes, and football and basketball players especially, report that it is harder to make their academic work their top priority and to get the grades they are capable of getting. These findings are related to successfully-competitive football and basketball programs in important ways. Football and basketball players in more successfully-competitive programs report that learning aids (e.g., tutors) are more available, but that it is even more difficult for them as athletes to meet the demands of their academic schedules.

Satisfaction with educational experiences and achievements. Student-athletes and extracurricular students are generally satisfied with their educational experiences. About 90% of each group are satisfied with their current courses, about 95% are satisfied with their college major, and 65% are satisfied with their performance in courses. There are no reliable differences in satisfaction between student-athletes and extracurricular students.

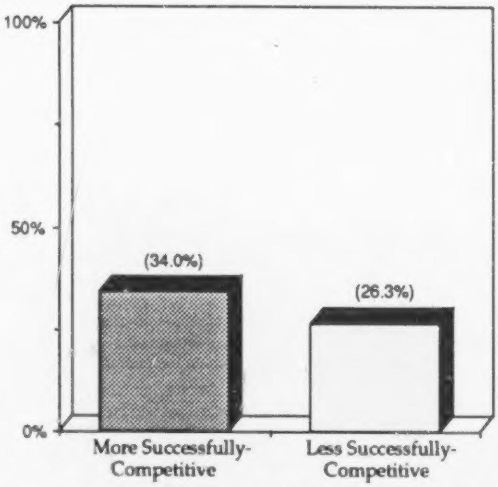

Figure 13. Football and Basketball Players in More and Less Successfully-Competitive Programs Who Say They Have Been on Academic Probation

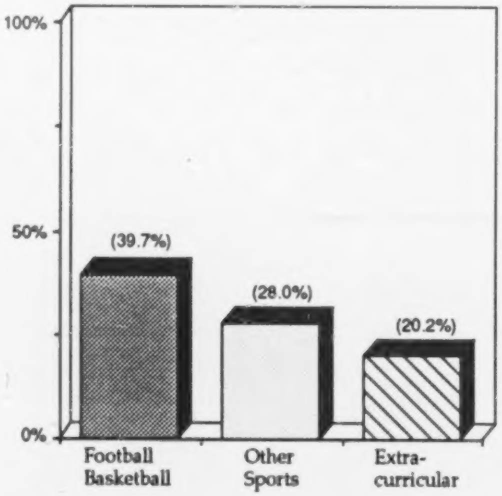

Figure 14. Students Reporting Attending Special Courses on Taking Notes, Listening in Class, Preparing Assignments

Health and personal development

General health and incidence of injuries. Student-athletes and extracurricular students report about the same levels of general health. Fewer than 30% of either group report problems with colds, fewer than 25% report any problems with sleeplessness, and fewer than 15% report any eating problems. Football and basketball players report many more problems with extreme tiredness or exhaustion than student-athletes in other sports. This is most evident for football and basketball players in more successfully-competitive programs.

Student-athletes report it is easier for them as athletes to keep in good physical shape and to get medical treatment than it is for other students generally. Not surprisingly, many fewer extracurricular students report that their participation in extracurricular activities makes it easier for them, as compared to other students, to either keep in shape or receive medical treatment. Overall, 39% of football and basketball players, 46% of other student-athletes, and 36% of extracurricular students report that being an athlete or an extracurricular student made it easier to avoid drugs. However, 12% of football and basketball players, 6% of other student-athletes, and 7% of extracurricular students report that being an athlete or extracurricular student made it harder to avoid drugs.

Fifty-two percent of football and basketball players and 49% of student-athletes in other sports report being injured as a result of participation in intercollegiate sports, as compared to only 12% of extracurricular students who report being injured in an extracurricular activity (see Figure 15). Twenty-five percent of the injured football and basketball players and 12% of the injured participants in other sports report they felt intense pressure to ignore their injuries (see Figure 16). Only about 2% of extracurricular students report they felt intense pressure to ignore injuries resulting from an extracurricular activity.

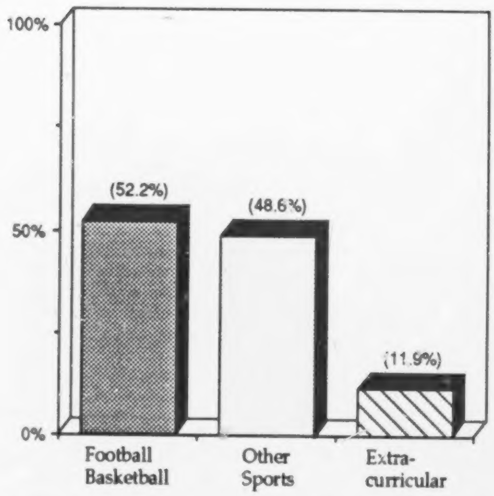

Figure 15. Students Reporting Suffering Injuries Due to Participation in Main Sport or Activity

Neither the reported incidence of injuries nor pressures to ignore injuries differed according to the more or less successfully-competitive programs in which student-athletes were engaged. Student-athletes generally report themselves more satisfied than extracurricular students with the medical care they receive from their institutions (see Figure 17).

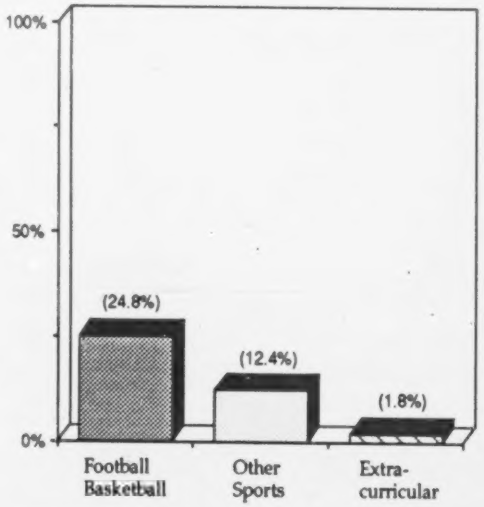

Figure 16. Students Reporting Pressure to Ignore Injuries

Physical and mental abuse and emotional well-being. All students were asked whether they had ever experienced physical or mental abuse at their institutions. (The sources of the abuse were not asked for in the questionnaires.) More football and basketball players report ever (i.e., one or more times) having been abused physically and mentally at their institutions than either student-athletes in other sports or extracurricular students report (see Figures 18 and 19). More football and basketball players than student-athletes in other sports report that they have experienced isolation from other students at their institutions. Football and basketball players are not reliably different from extracurricular students in their reports of feeling isolated, however.

These findings for football and basketball players show differences by whether the programs are more or less successfully-competitive. Football and basketball players in more successfully-competitive programs report more often having experienced physical and mental abuse and feelings of isolation than do football and basketball players in less successfully-competitive programs.

Opportunities for personal growth. Questions about opportunities for personal growth dealt with leadership and personal development, sociability, assertiveness, and rewards and recognition from others. Compared to extracurricular students, student-athletes in general report it is harder for them as athletes to take advantage of many opportunities for personal growth. For example, student-athletes report it is harder for them to take leadership responsibility, to learn from their mistakes, to talk about personal problems with others, and to speak their minds.

In contrast, in the area of rewards and recognition from others, student-athletes feel it is easier for them to earn praise and to travel to new places. Football and basketball players in particular report that it is easier for them as athletes to get special treatment from local townspeople and merchants (see Figure 20). This perception is somewhat stronger among football and basketball players in more successfully-competitive programs.

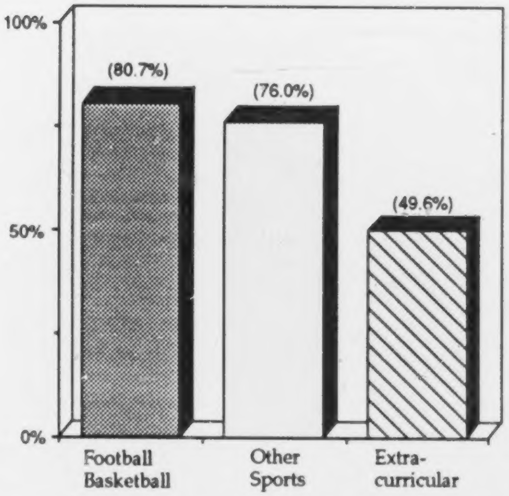

Figure 17. Students Reporting Satisfaction with Medical Care They Have Received

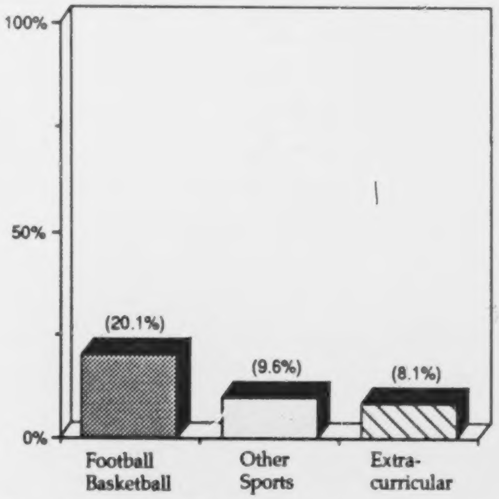

Figure 18. Students Reporting One or More Incidents of Physical Abuse

Social activities and interpersonal development

Housing and living arrangements. About 30% of football and basketball players and 17% of other student-athletes report they live in institutional housing that consists mostly of other student-athletes. About 20% of football and basketball players report they are required to do so (see Figure 21). In addition, some student-athletes report they are required to eat their meals with their teammates (see Figure 22).

Although football and basketball players believe that living with their teammates is a positive arrangement, such arrangements may contribute to feelings of isolation.

Football and basketball players who live in housing composed mostly of student-athletes are more likely than those who live in housing with other kinds of students to report frequent or occasional feelings of isolation (see Figure 23).

Interactions with other students and family. Students, including both student-athletes and extracurricular students, tend to socialize with others who have similar interests. When they socialize, student-athletes and extracurricular students tend to talk about different things. Football and basketball players, for example, are more likely to talk about their families and their sport, while extracurricular students are more likely to talk about classes, current events, and music.

When faced with personal problems, most student-athletes and extracurricular students confide in friends. Student-athletes are more likely than extracurricular students to confide in teammates and family members. As compared to extracurricular students, football and basketball players are more likely to confide in teammates, academic advisors, and family members.

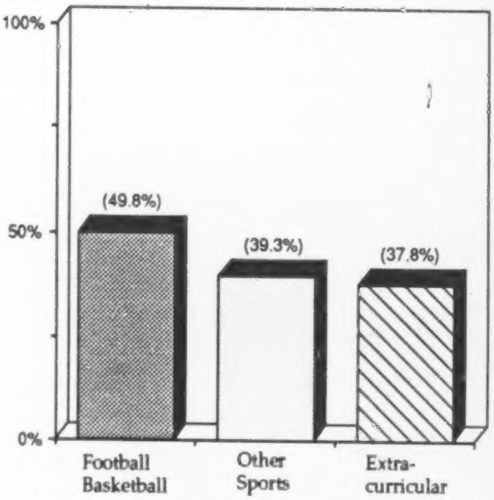

Figure 19. Students Reporting One or More Incidents of Mental Abuse

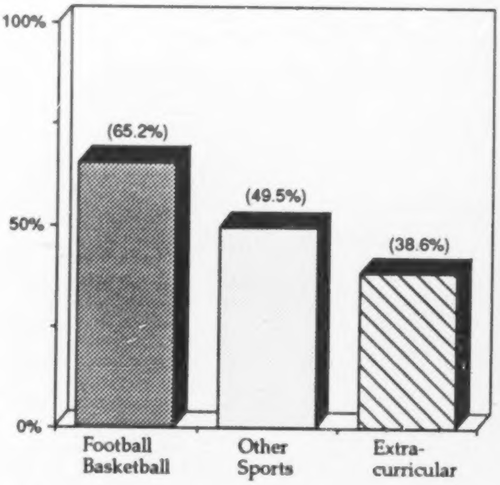

Figure 20. Students Reporting Receiving Special Treatment from Local Townspeople

Student-athletes with multiple problems

To be sensitive to the special needs of student-athletes having the most difficulties in college, "problem profiles" were developed for all students in the sample. These profiles were based on 16 indicators of problems, grouped into five areas: (1) psychological distress, (2) physical distress, (3) difficulty in avoiding drugs or alcohol, (4) mental and physical abuse, and (5) unsatisfactory academic performance.

Student-athletes with problems in at least two of the five areas were identified for further study. Football and basketball players composed the largest group of student-athletes identified; about 12% of the sample of football and basketball players were players were identified as having difficulties in college using this criterion. Among student-athletes in other sports, approximately 4% were identified as having multiple problems. About 7% of extracurricular students were also identified.

As a preliminary step in identifying factors that may be associated with these problems, analyses were conducted that tested relationships between selected indicators of institutional programs and the presence on campus of student-athletes with multiple problems. The results suggest that student-athletes with multiple problems are found more often in colleges and universities with more successfully-competitive football and basketball programs. About 14% of the football and basketball players in more successfully-competitive programs fall into the problem group as contrasted to 7% in less successfully-competitive programs. In addition, about 14% of the football and basketball players who experience more intense recruitment fall into the problem group as compared to 7% who experience less intense recruitment.

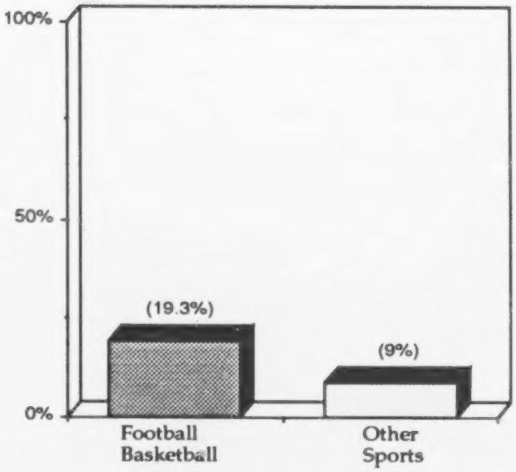

Figure 21. Percentage of Student-Athletes Required to Live with Teammates or Other Student-Athletes

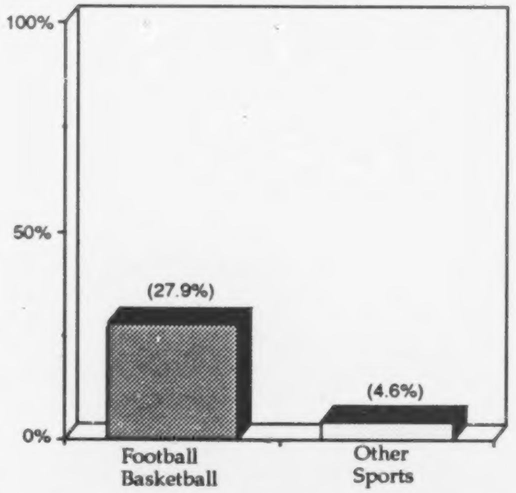

Figure 22. Percentage of Student-Athletes Required to Eat Most Meals with Teammates or Other Student-Athletes

Summary and conclusions

Four sets of questions from the NCAA Presidents Commission were the starting point for the 1987-88 National Study of Intercollegiate Athletes. In answer to the questions, the overall results from the study describe a complex picture of the student-athlete.

Both student-athletes and extracurricular students perceive that earning a college degree is very important. Both groups of students take many of the same types of courses, but their major fields of study are somewhat different. Student-athletes are more likely to major in business, while extracurricular students are more likely to major in arts and humanities. Both student-athletes and extracurricular students spend about the same numbers of hours per week preparing for their classes, in their classes, and in social activities, and both groups report themselves generally satisfied with their performance in their courses and with their academic performance. In all of these respects, student-athletes are more like extracurricular students than some might have imagined.

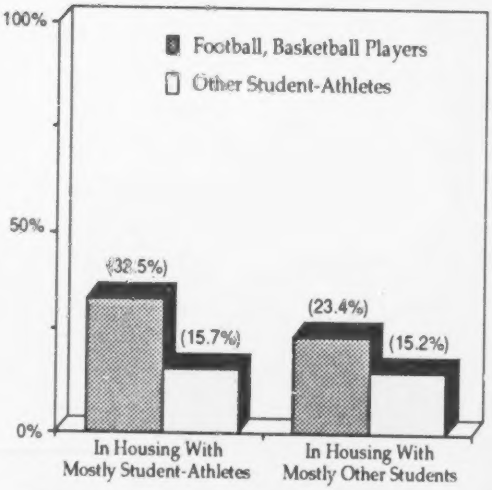

Figure 23. Student-Athletes Reporting "Frequent" or "Occasional" Feelings of Isolation

In contrast to extracurricular students, however, student-athletes spend more time in their sports, and they are more likely to have received a grant based on their participation in these activities. In spite of having these grants more often, student-athletes report having less money available each month for personal expenses, and they regard what they do have as less adequate. Student-athletes report more learning resources available to them (e.g., tutors), but they also report greater difficulties in making academic work their top priority. Student-athletes come to college less well prepared academically and have lower grade-point averages in college than extracurricular students. In all of these respects, students participating in intercollegiate athletics are different than students participating extensively in other extracurricular activities.

The experiences of student-athletes in "big-time" sports accentuate the differences between student-athletes generally and extracurricular students. Football and basketball players are different from other student-athletes in many ways. Football and basketball players spend more time in their sports, receive more full-cost athletic grants, perceive what money they have for personal use as less adequate, have more educational resources available to them, and, these resources notwithstanding, perform more poorly academically and feel less capable of meeting their academic demands. Football and basketball players in more successfully-competitive programs are at the extreme on many of these measures. Participation in "big-time" sports comes with a mix of advantages and disadvantages for student-athletes.

Finally, student-athletes are recruited more intensely than extracurricular students, although their scores on college entrance examinations and their high school grade-point averages are somewhat lower than those of the extracurricular students. The pressure on student-athletes during recruitment is perceived by these young men and women as intense. Despite the pressure, student-athletes are likely to see the recruitment process as helping them to make the right choice of a college or university.

Description of Planned Reports and Further Studies

Report No. 1 of the 1987-88 National Study of Intercollegiate Athletes presents the results of analyses that were designed to address four broad questions listed by the NCAA Presidents Commission in the *Agenda for Reform*. AIR is conducting additional analyses to focus on particular groups and areas of inquiry. Four reports of these analyses are planned for early 1989. Separate reports will focus on the special circumstances of the black student-athlete and the female student-athlete. A third report will be based on additional analyses of transcripts and will describe courses taken and grades achieved by student-athletes in greater detail. A fourth report will describe analyses of open-ended questions that invited students to comment on their college experiences. Of the 4,083 students who completed questionnaires during the national study, almost half responded to these questions.

The Presidents Commission asked a fifth set of questions that can't be answered by a one-time study of student-athletes, no matter how carefully designed.

5. What are the end results of college and university athletic programs? What are the graduation rates of various types of students and programs? How do student-athletes evaluate their college experiences as they come to an end? What do their lives look like three and four years after they leave college?

The cross-sectional data from the 1987-88 national study provide an important baseline from which to examine the career and life-course development of student-athletes. In order to answer the additional questions, however, new achievement data and information on attitudes and behaviors will have to be collected from the same students after graduation for comparison with the data now available from the national study.

1. Introduction

The findings presented in this report confirm some stereotypes about college athletes, but they also challenge others. As a result, the picture of the student-athlete that emerges from the data we gathered during the 1987-88 National Study of Intercollegiate Athletes is complex. Before beginning to draw that picture in Chapter 2, we describe briefly why and how the study was conducted. We then discuss our plans for additional research. The final section of this chapter describes the comparisons made in this report and how to interpret the figures and tables. Additional information about the methodology, including descriptions of the sample, can be found in Chapter 10.

Impetus for the Study

On June 3, 1987, the Presidents Commission of the National Collegiate Athletic Association (NCAA) mailed to the NCAA members a policy paper titled *Agenda for Reform*. The paper provided the rationale for an 18-month national forum on the proper role of intercollegiate athletics within higher education. To support the forum, the Presidents Commission sponsored a study of intercollegiate athletics to identify the effects of participation in intercollegiate athletics on student-athletes. The American Institutes for Research (AIR) was contracted to conduct the study, beginning in November 1987. This report is the first in a series that summarizes the overall findings from the study. A companion report describes in detail the methods that were used to collect and analyze the data. (See Report No. 2: *Methodology of the 1987-88 National Study of Intercollegiate Athletes.*)

In the *Agenda for Reform*, the Presidents Commission listed eight broad sets of questions they wanted addressed during the national forum. This study was designed to focus on the first four sets of these questions:

1. How do the experiences of college or university life of student-athletes compare with those of other students who devote a great deal of time to a particular extracurricular activity?
2. How do the experiences of student-athletes differ depending upon whether one is a participant in big-time sports or in sports that are not given a heavy emphasis?
3. How do the experiences of student-athletes compare with those of other students in terms of courses taken, classes attended, time spent on or off campus, and tutoring received? How do they feel about and evaluate their experiences? Do they see themselves as beneficiaries of fine programs, or as exploited? How do they personally experience the balance between athletics and academics in

their daily lives?

4. How are student-athletes recruited? How do recruitment activities differ depending upon the intensity of the athletic program? What are the differences in test scores and grade-point averages between athletes and other students? How do recruited students personally experience the process of choice of college and university and the role of athletic recruitment in that process?

These questions serve as the framework for the results presented in this report.

Overview of Study Methodology

We designed the 1987-88 National Study of Intercollegiate Athletes to gather information from full-time students who participated in an intercollegiate sport at colleges and universities that were Division I members of the NCAA. As a comparison for these student-athletes on the campuses, we also gathered information from full-time students who participated extensively in other extracurricular activities such as band or orchestra, drama or other performing arts, student newspaper or radio, or college work-study programs. By sampling students who, like athletes, participated in a nonacademic activity involving an extensive time commitment, we insured that any differences between athletes and nonathletes were not due solely to differences in time spent on a nonacademic activity.

To facilitate studies of the experiences of black student-athletes, our design also included a second comparison group of black students not participating in intercollegiate athletics or other extracurricular activities. By intent, we did not gather information from "average" or "typical" college students. When comparisons to average college students are helpful, we rely on existing databases to supply the information.

For the study, we drew a sample of 42 Division I colleges and universities to reflect the variation in location, size, and public or private status of all 291 Division I institutions. We selected the 42 at random from within the conferences and independent groups that comprise Division I of the NCAA. We selected 21 institutions from Division I-A, 11 from Division I-AA, and 10 from Division I-AAA.

To explore the effects of "big-time" sports programs within Division I institutions, we created a variable to indicate a sports program's success in competition and ranked the institutions in our sample according to values on this variable. Our measure of success in competition was the win-loss record and quality of opponents over time for the sports program. We based our variable on football and men's basketball because they are the leading revenue-generating sports for men. We included women's basketball in our group of "big-time" sports because it is the leading revenue-generating sport for women.

We selected student-athletes and comparison students at the 42 campuses in sufficient numbers to be confident that we were accurately representing all student-athletes in Division I colleges and universities. We selected the students at random from particular groups. At each of the 42 Division I institutions, we selected a sample of 80 student-athletes and 20 students heavily involved in other extracurricular activities, and a special sample of 10 black students. The student-athletes included 30 football players, 10 players each from men's and women's basketball, 10 men who had athletic grants in other sports, 10 women who had athletic grants in other sports, and a mixed group of 10 men and women without grants in other sports.

We made adjustments in the sizes of the student-athlete samples at the institutions that did not have football or women's basketball, or had them but did not compete the sports at the Division I level. (See Report No. 2: *Methodology of the 1987-88 National Study of Intercollegiate Athletes.*) The total sample drawn included 4,259 student-athletes and comparison students.

At the time we drew the 4,259 students for our primary sample, we also selected alternates in numbers equal to half the size of the primary sample. For example, we selected 30 football players as primary sample members on each campus and 15 as alternate sample members. When primary sample members either could not be located or refused to participate in the study, we turned to alternate sample members.

We designed separate questionnaires for student-athletes, extracurricular students, and the special sample of black students. All three questionnaire forms contained a common core of questions with the wording modified to fit the characteristics of the group. The questionnaires focused on aspirations and expectations, academic preparation and performance, recruitment experiences, personal and interpersonal experiences while in college, and physical and emotional health. (See Report No. 2: *Methodology of the 1987-88 National Study of Intercollegiate Athletes* for copies of the questionnaires.)

All data were collected by AIR staff who worked at the 42 campuses during the period from March to July 1988. We assembled student-athletes and comparison students in small groups (typically five or fewer) to fill in questionnaires. Only the students and AIR data collectors were present during the data collection sessions. Students took an average of 50 minutes to complete the questionnaires. At the time students completed questionnaires, we asked them for written permission to obtain copies of their high school and college transcripts and scores from the American College Testing (ACT) Assessment Program or Scholastic Aptitude Test (SAT).

AIR staff worked with liaison personnel at every institution. However, AIR staff completely controlled the data collection process. A specially designed system of identification codes was used to keep the identities of the institutions and students confidential.

We collected usable questionnaires from 4,083 student-athletes and comparison students. Of these, 3,210 (75% of 4,259) were from primary respondents and 873 were from alternate respondents. A core set of measures (e.g., grade-point average) has been collected for over 850 of the primary sample nonrespondents, and a special telephone follow-up of a sample of nonrespondents is underway. Table 1 presents the numbers of usable questionnaires returned to AIR by students in each of the eight sampling categories.

Because the primary and alternate members of the sample were selected at the same time using identical procedures, the two groups were combined for the analyses described in this report.

Planned Further Inquiries

This report is the first in a series that will examine the effects of participation in intercollegiate athletics on student-athletes. This report was designed to address many of the important questions that the NCAA Presidents Commission spelled out in the

Table 1.
Usable Questionnaires, by Category

Category	Desired Sample Size	Primary Respondents Number	Primary Respondents Percent	Alternate Respondents Number
Student-Athletes				
Football	960	739	77	178
Men's Basketball	420	350	83	59
Women's Basketball	389	336	86	49
Other Sports Male	395	319	81	75
Other Sports Female	384	335	87	56
Other Sports Mixed	451	324	72	105
Comparison Groups				
Extracurricular Students	870	598	69	225
Black Students	390	209	54	126
Total	4,259	3,210	75	873

Agenda for Reform. Later reports in the series will focus on particular groups of college athletes or particular areas of inquiry. Other important questions, such as those about the possible exploitation of student-athletes, their graduation rates, and their career potential, can only be answered by following these students beyond college. We are developing plans to create this sort of a longitudinal database to be able to examine the longer-term effects of participation in intercollegiate athletics.

Special-group studies

Special situations confront black student-athletes and female student-athletes on college campuses, ranging from different socioeconomic backgrounds to perceptions of being different. Therefore, we plan to do additional analyses that examine the experiences of each of these groups. Separate reports for each group will be released early in 1989.

No analyses using our special sample of black students are described in Report No. 1. The data from this sample will serve as one comparison for the experiences of black student-athletes in our future report. Because the response rate of the primary members of the special black sample was 54%, in part due to conditions set by institutions for data collection, we are currently doing a survey of the nonrespondents. The results from this survey will determine whether nonrespondents differ in systematic ways from the respondents.

Special-topic studies

In 1989, additional reports will be released to present the results of analyses of special topics. One report will be based on analyses of college transcripts and will describe courses taken and grades achieved in more detail than was possible for Report No. 1. The second of these special-topic reports will describe analyses of an open-ended question that asked student-athletes and other students to write anything they wanted about their lives at college. Of the 4,083 students who completed questionnaires during the study, 1,827 (45%) responded to the open-ended item.

Longitudinal studies

The cross-sectional data from the 1987-88 study represent a "snapshot" in time. The data provide considerable detail about the four 1987-88 classes, but do not allow analyses of changes in the performance and quality of experiences in individuals as they progress through college. Nor do the data allow us to determine the effects of participation in intercollegiate athletics as students leave the campuses and begin to establish careers and families. It is not appropriate, for example, to examine change during the college years by simply comparing currently enrolled freshmen to currently enrolled seniors. Because the same students are not being compared across time, differences that are found may be due to variable rates of attrition, as some students drop out of college and others do not. Therefore, we are developing a plan for longitudinal research that will include resurveying students in the current database at several points in the future. We are particularly interested in the transitions from the freshman to sophomore year and from the senior year to the world of work. We are also particularly interested in the possible circumstances of our samples of student-athletes and comparison students about five years out of college, when they will be able to look back and assess their college experiences.

Comparisons in This Report

Throughout this report, we examine the following groups of college students:

- students who participate in any intercollegiate sport ("student-athletes")
- students who participate in intercollegiate football and men's and women's basketball ("football and basketball players")
- students who participate in intercollegiate sports other than football and basketball ("other student-athletes")
- students who do not participate in intercollegiate athletics but do participate extensively in other extracurricular activities ("extracurricular students")

We compare and contrast the groups as follows:

- student-athletes in general with extracurricular students
- football and basketball players with other student-athletes
- football and basketball players with extracurricular students
- other student-athletes with extracurricular students.

In selected instances, we describe comparisons that involve subsets of one or more of these groups. For example, in the discussion of recruiting practices, we look at those student-athletes who participate in sports other than football and basketball and who receive athletic grants-in-aid. In most cases throughout the report, however, the terms "all student-athletes" or "student-athletes," "football and basketball players," "other student-athletes," and "extracurricular students" are used to describe the comparisons.

We include figures and tables in the body of this report to present findings. The figures are bar charts that show similarities or differences among groups. Most figures have bars to represent football and basketball players, other student-athletes, and extracurricular students. Some of the figures show other comparisons—for example, freshmen and sophomores versus juniors and seniors. We do not show all student-athletes combined in any of the figures. The tables in the body of this report show data for the principal groups being compared, plus measures of the strength of association between group and dependent variables (effect coefficients reported as correlations). Differences between groups that are statistically significant at the .05 level (two-tailed) as measured by weighted Student's *t*-tests are marked. The *t*-values themselves are not reported.

Many of the figures in this report present a subset of the data from a table. A few figures are not supported by a table in the body of the report. For them, duplicate figures with effect coefficients and significant *t*-values noted can be found in the Appendix.

Every comparison reported is based on data weighted to ensure that men and women and black and nonblack students are counted in the same proportion in each group being compared. Thus, the reader can be assured that the differences that are reported are not due to gender or race differences between the groups being compared.

By design, the national study included only students who compete in intercollegiate athletics or spend significant amounts of time in other extracurricular activities. We did not include the full range of undergraduate students on the 42 campuses. At times, it is interesting to compare our finding with those from two other studies that sampled a wider variety of college students. The first was conducted in 1984 by The Carnegie Foundation for the Advancement of Teaching (E. L. Boyer. *College: The Undergraduate Experience in America*. New York: Harper & Row, 1987.) The second was a 1984-85 survey of the transition from high school to college, also conducted by The Carnegie Foundation for the Advancement of Teaching. From the latter study, we use data that are described by E. L. Boyer in the book cited above.

To be able to compare the degree fields of the students in our sample with data from a wider survey, we used a category of "professional occupations" created by A. Astin and Associates. *The American Freshman: National Norms for Fall 1970 and Other Selected Years*. Los Angeles: Cooperative Institutional Research Program, 1984-85. The category includes occupations such as architecture, health sciences, home economics, protective services, and public affairs.

For the most part, this report describes what students reported in responding to the questionnaires. As you read the next chapters, keep in mind that when we say, for example, that "Football and basketball players are more strongly influenced by their parents and other family members than are extracurricular students," we are explaining what the student-athletes and comparison students reported to us. Comparisons of scores on college entrance exams are based on transcripts and institutional reports, however, and comparison of college courses and college grade-point averages are based on transcripts.

2. Preparation for College and Career Aspirations

Overview

Success and satisfaction with the college experience depend in large part on the readiness of high school graduates to take advantage of college-level learning and personal development opportunities. Football and basketball players entering college are less well-prepared academically, as measured by standardized test scores and high school grade-point averages, than are students who participate extensively in other extracurricular activities. Football and basketball players aspire most strongly to earn college degrees and to realize successful careers in later life. But student-athletes in general and other students who participate in time-demanding extracurricular activities are about equal in their desire to succeed in college and to earn baccalaureate degrees. Many indicate they plan to attend graduate or professional schools. Student-athletes' goals for the future include career and financial success, and, at the time of enrollment, they see getting a college degree as an important step. Football and basketball players have somewhat higher aspirations for financial success but expect somewhat lower status careers in the future than do extracurricular students.

The influence of parents in shaping education and career plans is especially strong for football and basketball players and other student-athletes. College coaches and academic advisors also strongly influence the plans of football and basketball players, indicating that student-athletes more often seek advice about their education and career goals than do students in other extracurricular activities.

Academic Abilities

The preparation and readiness of student-athletes for college is indicated, in part, by their scores on standardized college entrance exams and by the grades they earn in high school.

Standardized test scores

College football and basketball players score reliably lower on the American College Testing (ACT) Assessment Program and on the Scholastic Aptitude Test (SAT) than do students who are extensively involved in other types of extracurricular activities. Football and basketball players also score reliably lower on the SAT than do student-athletes in other sports (see Figures 1 and 2). For both the ACT and the SAT, the differences between other student-athletes and extracurricular students are reliable. As a comparison for the college entrance exam scores of the students in this study, the national average for all high school students who take the ACT is about 18.9 and for the

SAT is about 900.

Although NCAA Bylaw 5-1-(j) may increase awareness among high school athletes of the importance of these standardized test scores, we find no reliable differences between the test scores of football and basketball players and other student-athletes with athletic grants who entered before the passage of this Bylaw—juniors and seniors—and the scores of college athletes who entered after—freshmen and sophomores (see Figure 3). [Bylaw 5-1-(j) set minimum academic standards for incoming college athletes and took effect the year the sophomores in this study entered college.]

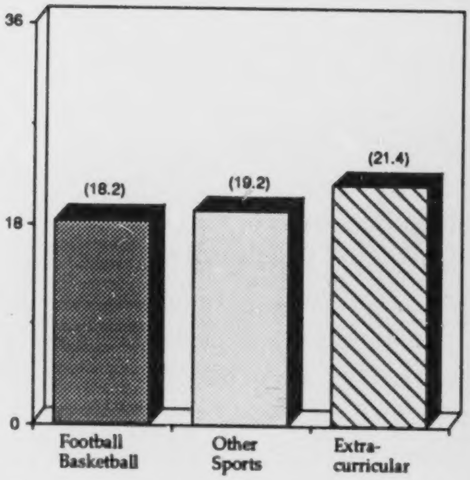

Figure 1. Mean ACT Composite Scores

High school grades

The pattern for grade-point averages (GPAs) in high school parallels that of the test scores. College football and basketball players report having a B average in high school, which is about a quarter of a grade lower than extracurricular students report. Student-athletes in other intercollegiate sports report GPAs that fall between the other two groups and are reliably lower than the averages reported by extracurricular students. Further, there are no reliable differences in the average high school GPA either for football and basketball players or for other student-athletes with athletic grants as a function of whether they entered college before or after the passage of Bylaw 5-1-(j). (We used reported high school grade-point averages in these analyses because the diversity in high school grading and grade-averaging systems made the analysis of actual averages impractical. We feel reasonably confident in the validity of these self-reported high school averages, however, because we found the correlation between self-reported and actual scores for another measure of academic ability—the SAT—to be .87.)

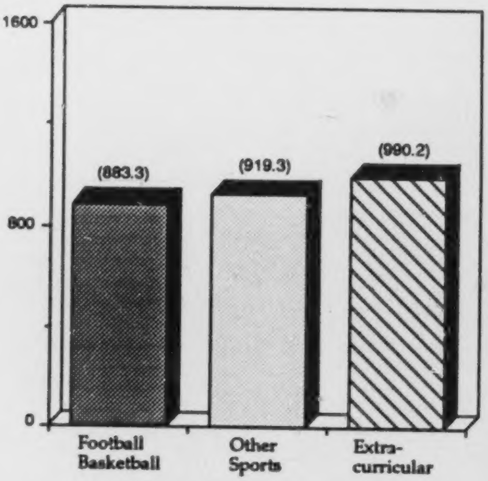

Figure 2. Mean SAT Composite Scores

Aspirations and Expectations

We looked at the aspirations and expectations of intercollegiate athletes by asking about their goals for college and their longer-range and life goals.

Academic success in college

Student-athletes are just as likely as students in extracurricular activities to say that, at the time they enrolled, earning a college degree was "important" or "of greatest importance" (see Figure 4). Among football and basketball players, we find that freshmen and sophomores are more likely than juniors and seniors to say that, at the time they enrolled, it was "of greatest importance" to earn a degree (73% versus 66%—see Figure 5). NCAA Bylaw 5-1-(j) may have contributed to this increased sense of degree importance, but we can only speculate as to the effect of this legislative initiative.

Given that earning a degree seems to be a priority for student-athletes and extracurricular students alike, we looked at the major fields of study in which the students say they expected to get their degrees. Table 2 shows the percentages of football and basketball players, student-athletes in other sports, and extracurricular students who say that, at the time they enrolled, they expected degrees in various fields. (This table also presents comparison data from a national survey of freshmen conducted by the Cooperative Institutional Research Program at the University of California at Los Angeles.) Note that our data are retrospective in that we asked students to think back to when they enrolled and tell us what fields they expected their degrees in at that time.

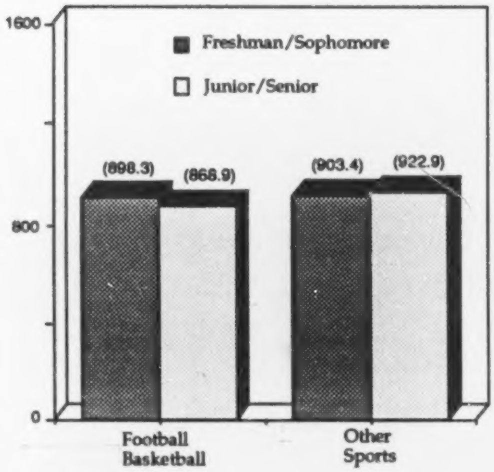

Figure 3. SAT Comparison

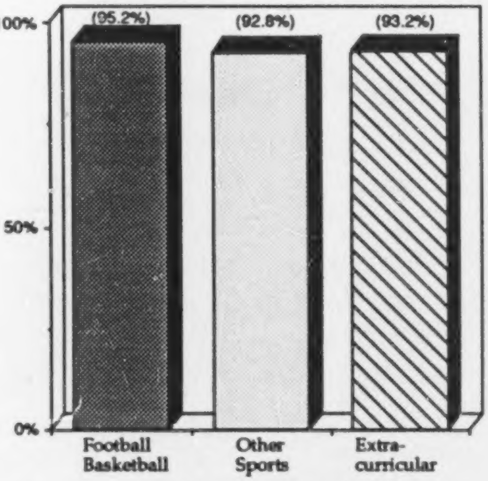

Figure 4. Students Reporting Degree of Importance or Greatest Importance: At Enrollment

As Table 2 shows, student-athletes more often list business as their expected degree field than do extracurricular students. In fact, they are about twice as likely as extracurricular students to list business. Extracurricular students more often list arts and humanities, biological sciences, education, and engineering than do student-athletes. The larger number of extracurricular students naming majors in the arts and humanities may be the result of our sampling strategy. By definition, these students were often selected from lists of students in music, drama, and other performing arts. However, few college athletes at all list arts and humanities as intended majors—the traditional liberal arts fields. While physical education is not a strong choice for student-athletes, they list it far more often than do extracurricular students. At the same time, student-athletes are about half as likely as extracurricular students to list education as their expected degree. Social science, professional occupations (e.g., architecture, health sciences, home economics, protective services, and public affairs), and communications (e.g., public relations, communication technologies) account for approximately 30% of the degrees expected by student-athletes.

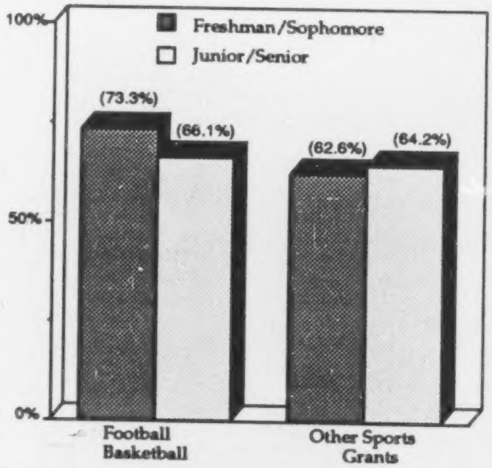

Figure 5. Students Reporting Degree of Greatest Importance: At Enrollment

Table 2.
Intended Degree at Enrollment [1]

	Percent				
	1984*	1985*	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular
Business	26	27	37.0	38.6	19.5
Engineering	11	11	11.3	12.4	16.9
Social Science	7	8	11.1	10.1	8.0
Professional Occupations	14	13	11.0	8.2	6.4
Communications	—	—	8.3	5.2	8.4
Physical Education	—	—	5.5	7.1	.1
Education	7	7	4.5	4.1	9.8
Computer/Information Sciences	—	—	4.1	4.5	5.3
Biological Sciences	4	3	3.1	3.9	7.9
Arts and Humanities	8	8	2.6	1.9	13.1
Physical Sciences	3	2	1.3	4.0	4.7

* *Source:* Alexander Astin and Associates, *The American Freshman: National Norms for Fall 1984 and 1985,* (Los Angeles: Cooperative Institutional Research Program).

[1] Major fields of study as reported by students were recoded into the more general categories shown. The r values are not available for these recoded groups.

Student-athletes are less likely than extracurricular students to say they plan to attend graduate or professional schools following graduation from college (49% versus 64% say they "almost certainly" or "probably" will attend). It is interesting to note that about half of the student-athletes express strong interest in continuing their education. In particular, freshmen student-athletes are almost as likely as extracurricular students to say they will "almost certainly" or "probably" enter a graduate or professional school following graduation (56% of the freshmen student-athletes as compared to 60% of the freshmen extracurricular students).

Future goals

Football and basketball players rate career success and financial success as more important goals for the future than do either student-athletes in other sports or extracurricular students (see Table 3). Similarly, student-athletes in other sports rate career success and financial success as more important goals for the future than do extracurricular students. Almost 78% of football and basketball players and 68% of other student-athletes say career success is of the greatest importance, compared to 62% of the extracurricular students. About 64% of the football and basketball players and 55% of other student-athletes rate financial success as of the greatest importance, compared to 46% of the extracurricular students. These ratings may be compared to findings from the 1984 Carnegie survey, which found that 63% of full-time undergraduates rate career success as of greatest importance while 43% rate financial success that high. The ratings by the extracurricular students in this study closely match the findings from the Carnegie survey. The close match supports our conclusion that football and basketball players and other student-athletes have higher aspirations for career and financial success than do extracurricular students.

Despite their focus on career and financial success in later life, the jobs football and

Table 3.
Importance of Future Goals

	Percent responding "Greatest Importance"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
How important are the following?						
Happiness	91.1	88.2	88.1	.04	.05	.03
Good health	83.9	83.7	72.5	.00	.13*	.15*
Career success	77.6	68.4	61.7	.10*	.14*	.08
Financial success	63.9	55.6	45.6	.10*	.22*	.16*
Intellectual development	49.7	49.5	56.0	.01	.06	.06

* Statistically significant

basketball players say they expect to have at age 40 are slightly lower in socioeconomic status than the jobs projected by extracurricular students for that age. [Status is measured by a male-based socioeconomic index (MSEI) developed for analysis of 1980 U.S. Census data.] According to the index, the difference in mean occupational status for these expected jobs (61.6 for football and basketball players versus 65.9 for extracurricular students) is comparable to the difference in occupational status between marketing, advertising, and public relations managers on the one hand and personnel, training, and labor-relations specialists on the other. Student-athletes in other sports are not reliably different from extracurricular students in their projections of jobs at age 40, as measured in terms of the socioeconomic status of those jobs.

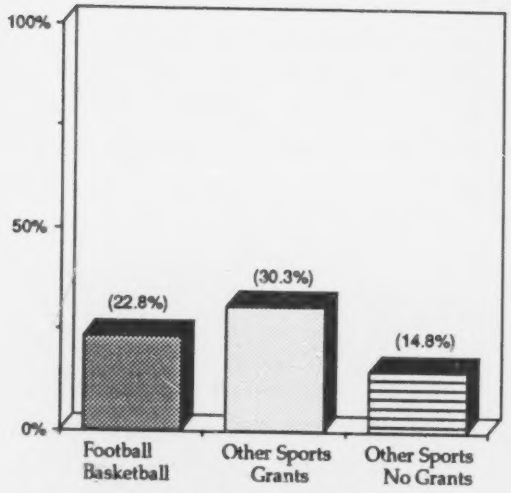

Figure 6. Student-Athletes Expecting to Become Professional Athletes: At Enrollment

We find that 23% of the student-athletes participating in football and basketball say that, at the time they enrolled, they expected to become professional athletes. This is a reliably smaller percentage than the 30% of athletes receiving grants in other sports who say that, at the time of enrollment, they expected professional athletic careers. The percentage of football and basketball players is, however, reliably higher than the 15% of athletes not receiving grants in other sports who say, at the time of enrollment, they expected professional athletic careers (see Figure 6). Although some of the student-athletes who expect to be professionals will achieve that status, the remainder may not be realistic in their expectations if we consider the number of positions available to rookies each year in professional sports in this country. Because student-athletes generally and football and basketball players in particular have high expectations for career and financial success, many of those who expect professional careers in athletics may have to set more modest financial goals for themselves.

Table 3 also shows that all three groups of students are about equal in rating happiness as an important goal for the future, and that football and basketball players and other-sports participants are not reliably different from extracurricular students in their ratings of intellectual development as an important goal. The percentages of students in this study who say that intellectual development is of the greatest importance (50% for football and basketball players and for other-sports participants, compared to 56% for extracurricular students) are lower than the 69% reported for all full-time undergraduates by the 1984 Carnegie survey. Football and basketball players and other student-athletes are, however, more likely than extracurricular students to say that good health is a goal of the greatest importance. This goal is consistent with their plans for professional athletics careers and, given the physical strains associated with sports participation in college, it is consistent with their hopes of avoiding serious injuries.

Influences on the Shaping of Education and Career Plans

When making education and career plans, football and basketball players and other student-athletes report that they are more strongly influenced by their parents and other family members than are extracurricular students (see Figure 7). Football and basketball players are more strongly influenced by their families than are other student-athletes. Football and basketball players are also more likely to be influenced by their college coaches than extracurricular students are to be influenced by the directors of their extracurricular activities, as shown in Figure 8. Finally, football and basketball players are more likely than student-athletes in other sports and extracurricular students to be influenced by academic advisors on campus in making education and career plans (see Figure 9). In contrast to football and basketball players, the influence of coach or director and academic advisor on shaping these plans is not reliably different when comparing other-sports participants to extracurricular students.

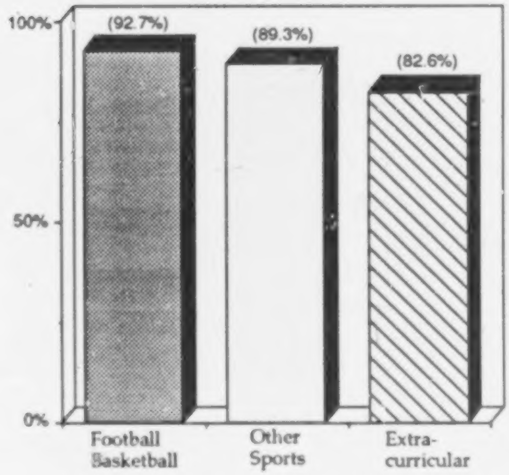

Figure 7. Students Reporting Family as Important Influence on Education or Career Plans

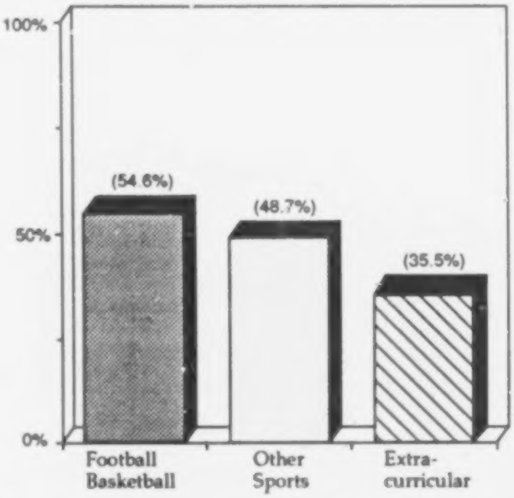

Figure 8. Students Reporting College Coach/Director as Important Influence on Education or Career Plans

The picture of the student-athlete being strongly influenced by family and more open to the influences of coaches and campus advisors is further reinforced in later chapters of this report. It may be that athletes come to depend early in their lives on parents and family for advice and continue to seek advice from them and important others (e.g., coaches and advisors) during college.

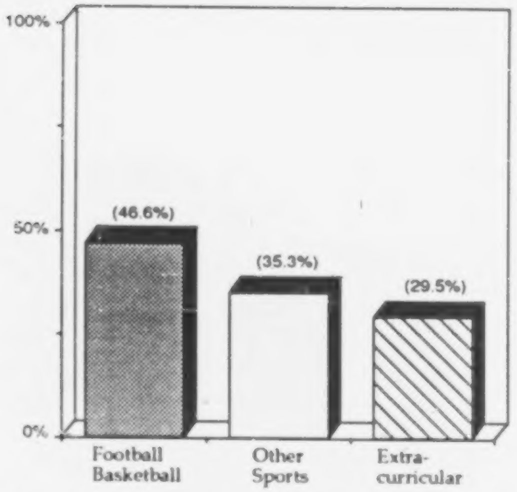

Figure 9. Students Reporting Academic Advisors as Important Influence on Education or Career Plans

3. Recruitment

Overview

As measured by the experiences of our sample, the competition among universities and colleges for talented athletes has remained relatively constant over a four-to-five year period. Concerns among the NCAA members for cost containment and for minimizing the recruitment pressures on high school seniors have not led to noticeable reductions either in the types of recruitment activities or in the extent to which these activities, when practiced by many institutions, have caused student-athletes to feel pressured by the recruitment process.

Not surprisingly, it is the football and basketball players who report feeling the most intense recruiting pressure. They are more often brought to campuses for special visits and more often visited in their homes as a part of recruitment as compared to other student-athletes. Grant recipients in other sports also report feeling more recruiting pressure than do non-grant student-athletes and students in extracurricular activities. Extracurricular students do experience recruitment pressure. However, the amount they perceive is less than that perceived by student-athletes.

The pressure that many student-athletes feel during recruitment must be weighed against the feelings of most of them that recruitment was helpful in choosing a college. One reasonable inference from the data is that a recruitment process that provides useful information to student-athletes stands a good chance of helping them to have a more satisfying collegiate experience.

Recruitment Activities

Table 4 compares the recruitment activities experienced by football and basketball players, grant-recipients and non-grant-recipients in other sports, and extracurricular students. All four groups of students are about equally likely to receive recruiting letters, although fewer nongrant-recipients in other sports report they receive letters that do football and basketball players. As the recruiting activities intensify, however, the gaps between the groups begin to widen. Football and basketball players experience far more of the highly intense recruiting activities than do either of the other student-athlete groups (see Figures 10 and 11). Further, student-athletes in general are exposed to more recruiting activities than are extracurricular students. The 6% of the extracurricular students that are visited at home by recruiters compares to 71% of football and basketball players, 42% of the grant-holders in other sports, and 26% of those in other sports without grants.

Table 4.
Recruitment Activities

	Percent responding "Yes"				Effect coefficients (correlations)			
	(1) Football Basketball	(2a) Other Sports Grant	(2b) Other Sports No Grant	(3) Extra-curricular	(1) vs. (2a) r	(1) vs. (2b) r	(1) vs. (3) r	(2a) vs. (3) r
Received telephone calls	95.2	92.0	87.4	56.8	.06	.11*	.43*	.40*
Received recruitment letters	94.9	90.8	86.7	97.3	.08	.11*	.04	.04
Visited recruiting institutions at institution expense	79.6	55.2	42.9	23.8	.24*	.27*	.42*	.40*
Visited at home by campus representatives during recruitment	71.2	41.5	25.9	5.8	.27*	.30*	.45*	.27*

* Statistically significant

Recruitment Intensity and Effects

Football and basketball players report feeling more intense pressure during recruitment than do other student-athletes and extracurricular students (see Figure 12). Grant-recipients in other sports report feeling more intense pressure during recruitment than do other student-athletes who do not receive grants or extracurricular students. We find no differences in perceived recruitment pressure between nongrant student-athletes in other sports and extracurricular students. Being recruited intensely may be perceived either positively and negatively, however. It can be gratifying and very prestigious to be highly sought after by colleges and universities.

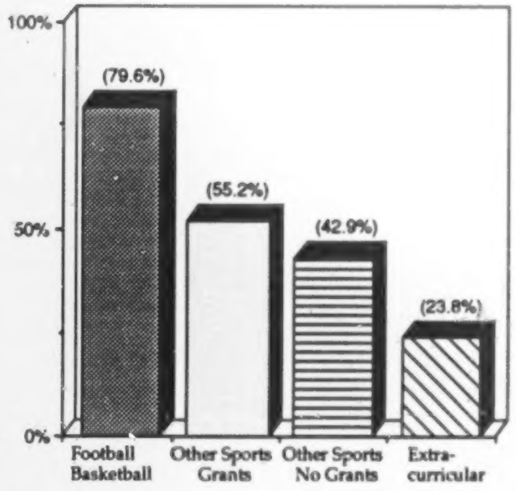

Figure 10. Students Reporting Paid Visits to Institutions

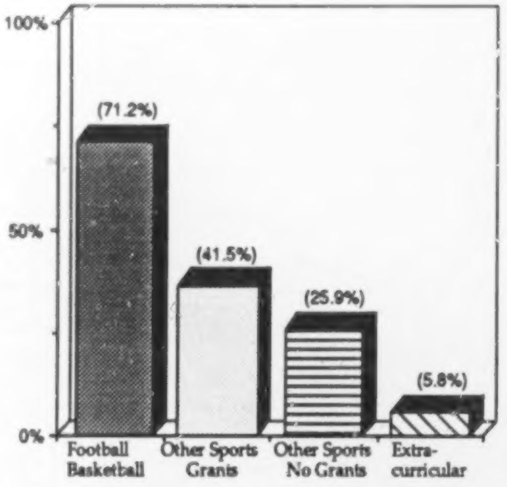

Figure 11. Students Reporting Recruiters Visited Them at Home

We grouped the freshman and sophomore football and basketball players together with the freshman and sophomores in other sports who receive athletic grants. Then we split the combined group into those students with composite SAT scores above 700 and those with scores below 700 [the minimum composite score required for eligibility under Bylaw 5-1-(j), which took effect the year the sophomores in this study entered college], and looked at differences in perceived recruitment pressure. Student-athletes with composite SAT scores below 700 were more likely to feel intense recruitment pressure than those in the group with test scores above 700. [The median SAT value for all freshman and sophomore football and basketball players and grant-recipients in other sports is 920, well above the minimum established for eligibility by Bylaw 5-1-(j)]. It seems as if the spirit—if not the letter—of Bylaw 5-1-(j) has had little effect on the targeting of recruitment strategies by institutions, as least as measured by students' perceptions of recruiting intensity.

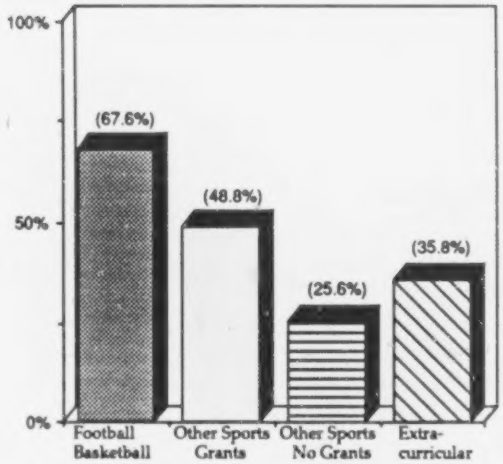

Figure 12. Students Reporting Recruitment Pressure

We might expect that the intensity of the recruitment process as perceived by student-athletes is related to how "successfully-competitive" the athletic programs are in which student-athletics participate. The extent to which programs in our sample are successfully-competitive is measured by the win-loss records of football and men's basketball teams over time, taking into account the strengths of their opponents (Sagarin ratings, *USA Today*, average of 1985-86 and 1987-88 ratings for football and average of 1984-85 and 1987-88 ratings for men's basketball). Because high school athletes can be recruited by many institutions (the student-athletes in our sample reported being recruited by 16 colleges, on average), we asked students to report on recruiting pressure in general, not just from the institution they are attending. Our results suggest that football and basketball players who experience the most intense recruitment pressures are to be found in institutions with more successfully-competitive athletic programs. Approximately 31% of the student-athletes in more successfully-competi-

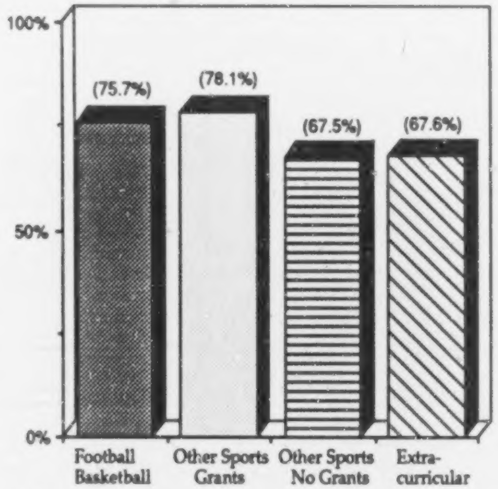

Figure 13. Students Reporting Recruitment Helped in College Selection

tive football and basketball programs (as compared to only 18% in less successfully-competitive programs) report they experienced extreme pressure during recruitment. It appears that the better athletes—those who are the most heavily recruited and perceive the most pressure—are to be found in the more successfully-competitive football and basketball programs.

College choice

In spite of the intensity of recruitment, more than 75% of football and basketball players and student-athletes who receive grants in other sports report that recruitment helped them in making the right college choice (see Figure 13). Only a very small number of student-athletes report they strongly agree with the statement that the information they received during recruitment caused them serious problems (3% of football and basketball players, 2% of other student-athletes receiving athletic grants, and 5% of nongrant student-athletes in other sports). In fact, there are no reliable differences between football and basketball players, other student-athletes with athletic grants, and other student-athletes without grants in the extent to which they perceive recruitment as causing problems while choosing a college.

We examined whether student-athletes who perceive intense pressure during recruitment might be less likely to report that recruitment helped in their choice of a college or university. The analysis indicates this is not the case. In fact, freshmen and sophomore student-athletes who report intense pressure during recruitment are only slightly more likely to say recruitment helped them in their college choice as are those who report less intense recruitment pressure. About 80% of the freshman and sophomores who experience intense pressure say recruitment helped versus 72% of those who experience less pressure—a difference that is not reliable.

College experience

Student-athletes who report that recruitment helped them make the right college choice also report higher levels of satisfaction with other aspects of college than do student-athletes who feel recruitment was not helpful. Specifically, those who feel recruitment helped are more likely to report satisfaction with their overall academic performance, their athletic performance, and with their lives in general (see Figure 14). Conversely, student-athletes who report that recruitment caused them serious problems are more likely to report they are dissatisfied with their lives at present. Those who say that recruitment caused them problems are not reliably different from those who say the opposite in terms of satisfaction with academic performance. However, we cannot make assumptions about the cause and effect in these cases. It may be, for example, that if student-athletes are presently satisfied with their academic performance, their athletic performance, and with their lives in general, they may feel that even overly intense recruiting practices were helpful in making the right college choice.

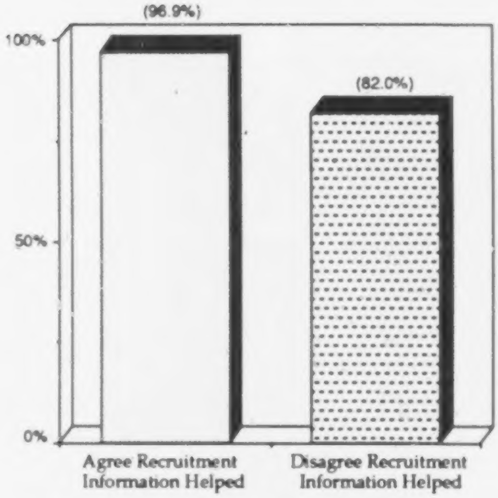

Figure 14. Student-Athletes Reporting Satisfaction with Their Lives

We also looked at whether the relationship between recruitment practices and satisfaction with college choice differs depending on the extent to which the athletic program is successfully-competitive. We find that student-athletes in less successfully-competitive football and basketball programs are as satisfied with their lives regardless of whether recruitment was perceived as helping in college choice. In more successfully-competitive programs, however, there is evidence that if recruitment is perceived as helpful, satisfaction with life is somewhat higher.

What is clear from these analyses is that recruitment and the college experience of student-athletes are related. Although recruitment may be perceived as an intense experience by many young men and women, the intensity by itself does not seem to affect whether recruitment is perceived as helpful in selecting the right college or university. It seems that student-athletes with a positive attitude about their studies, their sport, and their lives also have a positive attitude about recruitment, particularly if they are competing in the more successfully-competitive football and basketball programs.

4. Participation in Intercollegiate Athletics and Financial Aid

Overview

Once enrolled in colleges and universities, students usually experience greater freedom and assume greater responsibility than they are accustomed to from high school. Students can now choose how to apportion their time (e.g., for study or socializing), but they also must satisfy others who expect them to perform well. Perhaps more than mainstream students, both student-athletes and extracurricular students feel the pressures of tight schedules caused by the competing demands of coursework and of their sports or extracurricular activities.

As reported earlier, virtually all student-athletes aspire to earn college degrees, and about one-quarter of them also aspire to professional sports careers. Given the latter goal and the usual pressures associated with winning competitions, it may not be surprising to find that student-athletes spend more time in their sport than comparison students do in their main extracurricular activities. Student-athletes may be practicing and competing for more hours each week than extracurricular students, but they report less satisfaction with their athletic performance than these comparison students report for their performance in extracurricular activities.

About as many freshmen student-athletes in football and basketball are redshirted (i.e., practice only) as compete on varsity teams. Freshmen football and basketball players who are redshirted, however, spend as much time in their sport as freshmen who compete. This pattern is the same for freshmen redshirts in other sports. The similarity in time spent in their sports may contribute to a lack of differences between freshmen redshirts and varsity competitors both in academic performance and satisfaction with courses.

In recognition of their athletic abilities, student-athletes usually receive financial aid for college in the form of athletic grants. More than two-thirds of the student-athletes surveyed, for example, receive athletic grants covering all or part of their tuition, room and board, and other related educational expenses. In spite of these grants, however, student-athletes on the average have less spending money each month than extracurricular students, and they are more likely to perceive what they do have as inadequate for their needs.

Finally, in examining the relationship between coaches and student-athletes, students report that coaches assist them in managing their time, encouraging them to do well in class, and monitoring to see that they are earning the grades they are capable of earning. Coaches also are reported as helping students by understanding their problems and assisting them with various demands that student-athletes contend with—in and out of their sports.

Aspirations and Expectations

We asked student-athletes whether they expected to become professional athletes at the time they enrolled in college. We also asked them whether they currently (at the time of our survey) expect to become professional athletes. The time from enrollment to our survey was about eight months for freshmen, a year and eight months for sophomores, two years and eight months for juniors, and three years and eight months for seniors.

As reported earlier, approximately 23% of football and basketball players, 30% of grant-recipients in other sports, and 15% of nongrant-holders in other sports say they expected to become professional athletes at the time they enrolled in college. These expectations persist over time. For example, approximately 75% of the football and basketball players and 79% of the grant-recipients in other sports who say that, at the time they enrolled, they had expected to become professional athletes, say that they currently have the same expectation. In addition, 10% of the student-athletes in these two groups who say they did not expect professional careers at the time they enrolled currently say they do. At the time of our survey, 22% of football and basketball players, 33% of grant-recipients in other sports, and 14% of nongrant-holders in other sports say then expect to become professional athletes (see Figure 15). For seniors only, approximately 21% of football and basketball players and 25% of grant-recipients in other sports say they expected to become professional athletes at the time they enrolled and still expect to at the time of our survey.

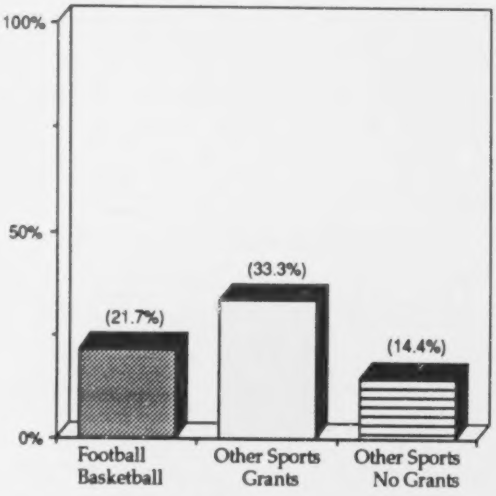

Figure 15. Student-Athletes Expecting to Become Professional Athletes: At Time of Survey

Student-athletes answered yes or no to our questions of whether they expected to become professional athletes at the time they enrolled and whether they expect to now (at the time of our survey). We asked those who said they now expect to become professional athletes to estimate their chances, and gave them four response categories. Of those football and basketball players (22%) who say they now expect professional careers, only 8% report they "probably" or "almost certainly" will become professionals. Similarly, of those grant-recipients in other sports (33%) who say they now expect to become professional athletes, only 19% report they "probably" or "almost certainly" will become professionals. These numbers are quite small: only about 2% of all Division I football and basketball players and about 6% of all other Division I sports participants who receive athletic grants say that they "probably" or "almost certainly" will become professionals. Comparing these numbers to the available positions for rookies in professional sports in this country, it may not be unreasonable at all for these student-athletes, who place some certainty on their chances, to hold their current expectations of professional sports careers.

Time Demands and Use of Personal Time

The caliber of play at the Division I level (and perhaps the allure of careers in professional sports) requires that individuals and teams spend considerable amounts of time preparing for competitions. Conference and non-conference schedules make travel a necessity, and pre-season and post-season events can extend the regular playing seasons. All this adds up to large time demands on student-athletes.

In considering these time demands, it is important to recognize that the number of college students subject to them is relatively small. In the 1984 Carnegie survey, fewer than 10% of undergraduates nationwide reported spending any time participating in intercollegiate athletics. Student-athletes who devote more time to their sports than to their classes are bound to stand out; they are likely to be perceived quickly by faculty and by other students as "different" from typical undergraduates. This sense of "being different" is one more demand, albeit a psychological one, that student-athletes must face.

In-season demands

Table 5 summarizes the hours spent per week in various activities during the period when sports and extracurricular activities are in season. We find that student-athletes in general and extracurricular students are similar in the amounts of time they spend preparing for and attending classes. However, football and basketball players spend more time in their sport during the season than they spend preparing for and attending class combined (i.e., about six hours per week more in their sport). This finding holds for football and basketball players regardless of whether they are in a more or less successfully-competitive athletic program. Student-athletes in other sports spend nearly as much time in their sport as they spend both in preparing for and attending class. Extracurricular students do spend less time in their main activities than student-athletes spend in sports, but even they spend more time in their main activities than they do preparing for classes or attending classes. Because we collected data only

Table 5.
Time Demands and Use of Personal Time (In Season)

	In Season			Effect coefficients (correlations)		
Number of hours per week spent in:	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Main sport/activity	30.0	24.6	20.4	17*	.25*	.15*
Class and labs	13.7	14.0	15.0	.01	.07*	.02
Preparing for class	11.6	13.2	12.6	09*	.05	.05
Social activities	9.7	11.4	10.6	.09*	.04	.04
Relaxing alone	9.2	11.1	8.3	.09*	.05	.06
Extracurricular activities (except main one)	3.7	4.3	6.2	.05	.18*	.11*
Number of Classes Missed per Week	2.0	2.2	1.2	.02	.14*	.21*

* Statistically significant

from student-athletes and extracurricular students, we do not know how much time a "typical" student spends preparing for and attending classes. However, the 1984 Carnegie survey of undergraduates found that the median value for hours per week in class was 14.5.

Student-athletes miss about two classes a week when their sports are in season, about one class a week more than the extracurricular students (see Table 5). This finding suggests that student-athletes have to pursue academic goals without the benefit of attending many of their class periods. Given the lengths of the seasons for some sports, student-athletes are missing substantial numbers of classes. We do not know, however, how many of the missed classes are "made-up" by special tutoring or other forms of academic assistance.

Out-of-season demands

When sports and extracurricular activities are out of season, the time demands on student-athletes and comparison students abate overall (see Table 6). Nonetheless, football and basketball players and other student-athletes continue to spend more time in their sports than they do preparing for class or attending class. Extracurricular students spend less time on their activities when out-of-season than student-athletes do, and they spend more time on their classes than in their extracurricular activities during their off-season.

It should be noted that student-athletes miss approximately one class a week during the off-season. Extracurricular students miss nearly that many, but the total number of classes they miss during an academic term is likely to be less than the number for student-athletes.

Table 6.
Time Demands and Use of Personal Time (Out of Season)

Number of hours per week spent in:	Out of Season (1) Football Basketball	(2) Other Sports	(3) Extra-curricular	Effect coefficients (correlations) (1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Main sport/activity	17.9	15.6	11.4	.08*	.22*	.12*
Preparing for class	14.6	15.3	14.6	.03	.01	.03
Class and labs	14.4	14.2	15.3	.01	.05	.02
Social activities	13.4	14.1	12.7	.03	.03	.08*
Relaxing alone	11.1	12.8	10.0	.07	.05	.05
Extracurricular activities (except main one)	6.4	6.7	6.9	.02	.03	.05
Number of Classes Missed per Week	1.1	1.1	.8	.02	.10*	.10*

* Statistically significant

Time investments and satisfaction with performance

With the considerable time investments made by student-athletes in their sports and by extracurricular students in their activities, we wondered whether the time spent in practice and competition was related to satisfaction with performance in these activities. We found no such relation. Student-athletes who spend more time in their sport than others are no more likely to be satisfied with their athletic performance. The same result holds for extracurricular students.

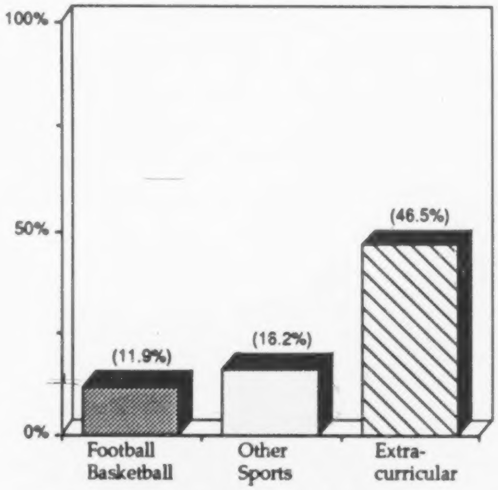

Figure 16. Students Reporting Themselves Totally Satisfied with Their Athletic/Activity Performance

A difference worth noting, however, is that many more extracurricular students report themselves satisfied with their performance in their activities than do student-athletes with respect to their athletic performance. Figure 16 shows the percentages of student-athletes and extracurricular students who report they are "totally satisfied" with their performance (12% of football and basketball players, 16% of other student-athletes, and 47% of extracurricular students). At the other end of the distribution, nearly 6% of the student-athletes as compared to only 1% of the extracurricular students say they are "not satisfied at all" with their performance. Whether the reason is a greater tendency toward self-criticism, a greater appreciation of how well others are performing, or something else, fewer student-athletes than extracurricular students are likely to leave practice or competition each day feeling satisfied with their performance.

Managing time demands

As we will see, coaches help student-athletes manage their time. Perhaps because of this help, approximately 70% of student-athletes believe they manage their time better than other students do. However, more than 80% of extracurricular students believe they manage their time better than other students do, and the extracurricular students are less likely to report getting any help from the directors of their activities.

Given the extreme time demands placed on student-athletes in general, it is not surprising that coaches discourage student-athletes from participating in other sports besides their main one. While only 9% of extracurricular students report that they are discouraged by their activity directors from participating in additional extracurricular activities, 73% of football and basketball players and 76% of other student-athletes report being discouraged from participating in other sports.

Practice and competition during the freshman year

Freshman student-athletes are perhaps most at risk in coping with the time demands of intercollegiate athletics. They must meet the requirements of their courses and their sports at the same time they are adjusting to college life. We looked to see whether freshman student-athletes spend as much time in their sports as other student-athletes, and whether they are experiencing any special problems in adjusting to the demands.

We began by looking at the relative number of freshmen who compete in intercollegiate athletics at the varsity level as contrasted with those who only practice at that level (i.e., redshirts). Freshman football and basketball players are less likely to practice and compete with the varsity than are freshman student-athletes in other sports. Forty-two percent of freshman football and basketball players practice and compete at the varsity level, while another 42% engage only in varsity practice. By comparison, 77% of freshman student-athletes in other sports (both grant and non-grant holders) practice and compete at the varsity level.

We find no difference in the average number of hours per week freshmen redshirts spend in their sport compared to freshmen student-athletes who do compete (about 25 hours for each group when in season). In season, freshmen redshirts and active competitors spend approximately five hours per week less in their sports than do the other class participants in those sports. In short, freshmen spend almost as many hours in their sports as other student-athletes, whether they are redshirts or players on the roster.

When sports are in season, freshmen student-athletes who compete in football and basketball report they miss about one-half class more per week than freshmen redshirts in these sports. However, we find no substantial differences on other measures, such as course attendance and course performance, between freshmen redshirts and freshmen who compete in football and basketball or in other sports. For example, freshmen redshirts and active competitors are as likely to find it easier (or more difficult) to keep up with coursework, and are as likely to receive (or not receive) incomplete grades in courses. In addition, freshmen who compete are not reliably different from freshman redshirts in their reports of satisfaction with their courses, their course performance, and their overall academic performance.

At this time, our database does not allow us to compare college grade-point averages (GPAs) for these two groups of freshman athletes. (This comparison will be made in a forthcoming report on the academic performance of student-athletes.) However, we are able to examine whether practice versus competition at the varsity level during the freshman year affects the academic performance of student-athletes in later years. We asked the sophomore, junior, and senior student-athletes in our sample whether they were redshirted or competed at the varsity level as freshmen, and we have examined their college GPAs. We find that for football and basketball players, those who competed as freshmen are performing about as well academically as those who were redshirted (a current GPA of 2.24 for sophomores, juniors, and seniors who competed versus a current GPA of 2.31 for those who practiced only). For student-athletes in other sports, the results are less conclusive at this time. However, there is some indication that those who competed as freshmen are more satisfied currently with their academic performance. We remind the reader to be cautious in drawing conclusions about presumed effects over time from cross-sectional data of the sort presented here.

Finances at College

For many students, financial aid is essential for attendance at college. The 1984-85 Carnegie survey, when investigating the high school-to-college transition, reported that, of all topics related to college attendance, high school students want to know about financial aid most. For parents, financial aid ranked second in importance only to college costs.

Student-athletes in most Division I institutions may receive athletic grants to cover all or part of their tuition, room and board, and related educational costs. To fully understand the significance of college expenses in the lives of student-athletes, it is important to examine their perceptions of the availability and adequacy of financial support.

Table 7.
Finances - Grants

	Percent responding "Yes"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other [1] Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Have you ever received a major sport/ activity grant (scholarship)?	73.9	65.9	24.9	.08	.40*	.25*
Was the amount of the grant ever reduced?	5.2	7.2	2.0	.06	.01	.04
Was the grant ever taken away?	3.5	2.1	3.0	.03	.07	.02
Have you ever been threatened with grant reduction?	14.0	8.1	5.7	.07	.01	.01
Do you currently receive a grant?	69.5	61.3	—	.01	—	—
Are you currently on a full (rather than partial) scholarship?	60.1	18.8	—	.51*	—	—

* Statistically significant

[1] Other sports participants were oversampled based on whether or not they received athletic grants. Percentage estimates in this column of this table refer to the population represented by the sample for the national study only, not to the population of all other sports participants in the nation.

Grants and other sources of funds

We asked students whether they have ever received a grant. We find substantial differences between student-athletes and extracurricular students in the numbers who have ever received a grant tied to participation in athletics or extracurricular activities (see Table 7). For example, 74% of football and basketball players report having ever received an athletic grant. In contrast, only 25% of extracurricular students report having ever received a grant because of their extracurricular activities.

We also asked student-athletes if they are currently receiving a full grant or scholarship. We find that 60% of football and basketball players currently receive grants covering the full costs of tuition, room and board, and other education-related expenses (e.g., books). In contrast, only 19% of student-athletes in other sports currently receive full grants (and this estimate is from student-athletes who were oversampled on the basis of their receiving any athletic grant at all).

We asked students about the importance of these grants and various other sources of funds in paying for educational and other expenses at college—specifically, their importance for the current term and their importance for a fifth year of study, after eligibility for sports participation expires, if needed for graduation. Tables 8 and 9 contain the results from these inquiries.

Table 8.
Finances - Sources of Funds This Term

Importance of potential sources of money for this term's educational and living expenses	Percent responding at least "Somewhat Important" as sources of funds (1) Football Basketball	(2) Other [1] Sports	(3) Extra-curricular	Effect coefficients (correlations) (1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Parents and Family	81.6	87.6	85.0	.09*	.08*	.11*
Athletic/Activity Grants	72.8	65.2	30.4	.12*	.38*	.23*
Jobs	72.0	75.3	84.3	.02	.12*	.13*
Personal Savings	70.3	68.3	74.7	.04	.03	.04
Other Grants/Scholarships	37.9	45.8	55.0	.06	.13*	.11*
Personal Loans	27.1	34.3	48.8	.06	.16*	.15*
Friends	14.3	7.8	7.0	.09*	.10*	.01
Alumni of this School	12.8	9.2	10.5	.06	.04	.03

* Statistically significant

[1] Other sports participants were oversampled based on whether or not they received athletic grants. Percentage estimates in this column of this table refer to the population represented by the sample for the national study only, not to the population of all other sports participants in the nation.

Table 9.
Finances - Sources of Funds for Additional Year

Importance of potential sources of money for an additional year's educational and living expenses after eligibility expires	Percent responding at least "Somewhat Important" as sources of funds (1) Football Basketball	(2) Other [1] Sports	(3) Extra-curricular	Effect coefficients (correlations) (1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Jobs	77.4	76.0	83.7	.00	.06	.07
Parents and Family	73.2	76.3	68.4	.04	.03	.12*
Personal Savings	69.0	70.3	65.7	.01	.02	.01
Other Grants/Scholarships	51.7	46.3	55.9	.05	.03	.07*
Personal Loans	51.2	45.4	54.7	.04	.03	.10*
Athletic/Activity Grants	50.7	35.3	28.8	.14*	.18*	.01
Alumni of this School	11.8	9.8	6.9	.04	.08*	.03
Friends	7.6	2.8	1.6	.08*	.11*	.03

* Statistically significant

[1] Other sports participants were oversampled based on whether or not they received athletic grants. Percentage estimates in this column of this table refer to the population represented by the sample for the national study only, not to the population of all other sports participants in the nation.

For the current term, with the exception of athletic and activity grants, the ranking of the eight possible sources of funds was nearly identical for student-athletes and extracurricular students. The ratings of the importance of specific sources varied among the groups, however. We may infer from Table 8 that football and basketball players regard athletic grants as more important sources of funds than extracurricular students regard their activity grants, and this is true also for other student-athletes (keep in mind that we oversampled other sports participants who received athletic grants). Extracurricular students, on the other hand, do regard their savings, other types of grants and scholarships, personal loans, and jobs as more important sources than do student-athletes.

In estimating the importance of various sources of funds for a fifth year of college if needed after eligibility expires, the importance of athletic grants for student-athletes dropped, but not nearly to zero. One-half of the football and basketball players believe that an athletic grant will be an important source of funds for completing their education if a fifth year is needed. About one-half of these student-athletes named other grants and scholarships as likely sources for continuing support, about the same percentage that named personal loans as important sources. As reported in Table 9, extracurricular students seem to attach about the same order of importance as football and basketball players to alternative sources of funds for an additional year.

Availability and adequacy of support

Athletic grants can be used to cover only tuition, room and board, and certain other education-related expenses; they cannot be used for personal expenses that are unrelated to education. Meeting their personal financial needs (e.g., for clothing, transportation, and socializing) remains the responsibility of the student-athletes.

We asked all students to estimate how much money they have available each month after tuition and other education-related expenses are paid. We provided 11 response categories for our question; each one a range of values (e.g., \$50-\$100). In our analyses, we used the midpoint of each of the 11 ranges to calculate averages for our different groups. Student-athletes report having less money than do extracurricular students, as shown in Table 10. Football and basketball players, in particular, report about \$30 less each month than the extracurricular students. In answer to whether they feel these monthly amounts for personal expenses are adequate, more than half of the football and basketball players say "no," a substantially higher fraction than of student-athletes in other sports and of extracurricular students.

Football and basketball players are more likely than other student-athletes or extracurricular students to feel it is easier for them to get money for personal expenses.

Table 10.
Finances - Availability

	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	Effect coefficients (correlations)		
				(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
About how much money do you have per month after expenses for your room, food, tuition, fees, and course-related books?[1]	$82	$100	$114	.06	.10*	.02
Percent saying this amount is adequate	42.1	58.0	57.8	.13*	.14*	.02

* Statistically significant

[1] Averages are calculated from the midpoints of 11 ranges of dollar values provided in the questionnaires.

For example, they feel it is easier for them as college athletes to get summer jobs (see Figure 17) and part-time jobs. Whether these jobs go unfilled, pay less, or the monies earned are needed for other obligations, football and basketball players do not feel the spending money they have during college is enough.

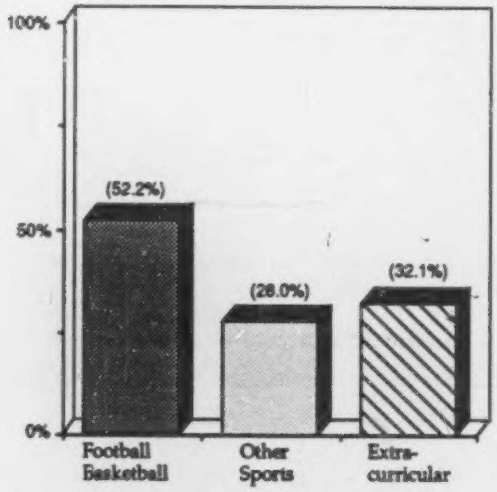

Figure 17. Students Reporting It Is Easier to Get a Summer Job

Relationships with Coaches

Coaches are important influences on student-athletes. As we have seen, they can help in shaping education and career plans. Coaches also can assist with day-to-day problems. For example, 36% of student-athletes in football and basketball report they receive help from coaches in managing their time, as compared to 25% of the extracurricular students who report receiving help in this area from the directors of their activities.

We examined the role of coaches and coaching staffs from the perspective of the players—first asking student-athletes to rate the importance of various actions coaches might take to provide assistance, and then asking them to rate the performance of their coaches.

What it is important for coaches to know or do

Table 11 summarizes what student-athletes and extracurricular students feel it is important for coaches and directors of extracurricular activities to know or do. This table reveals that student-athletes differ from extracurricular students in their ratings of

Table 11.
Relationships with Coaches/Directors

Important for coaches/directors to know or do the following:	Percent responding "Greatest Importance"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Encourage good performance in courses	70.5	69.5	55.9	.02	.13*	.20*
Keep track of performance in courses	62.2	57.5	37.4	.03	.28*	.29*
Listen to non-sport/non-activity problems	42.6	38.8	27.7	.01	.16*	.22*
Know what campus life is like	41.5	40.4	54.4	.02	.11*	.14*
Help with health problems	39.6	40.9	22.0	.04	.23*	.34*

• Statistically significant

each of the dimensions examined. For example, student-athletes are more likely than extracurricular students to feel that coaches or activity directors should encourage good performance in classes. Similarly, student-athletes feel more strongly that it is important for coaches to keep track of their performance in courses (see Figure 18).

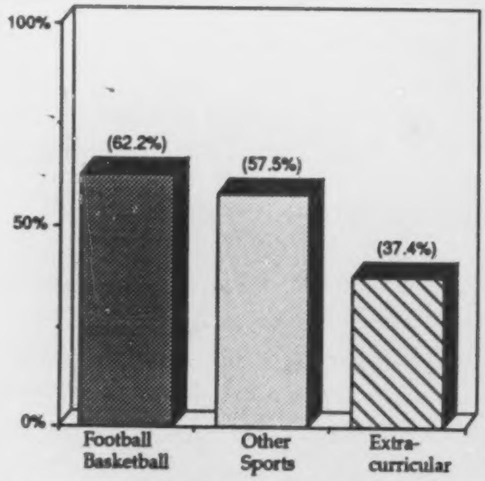

Figure 18. **Students Reporting Importance of Coaches/Directors Keeping Track of Students' Performance in Courses**

Student-athletes also report that it is particularly important for coaches to listen to and assist with their problems outside sports (e.g., problems with courses, personal problems). Furthermore, student-athletes feel it is important for coaches to help with health problems. However, extracurricular students are more likely than student-athletes to feel it is "of greatest importance" for activity directors or coaches to know what campus life is like for students.

How well coaches measure up

We asked students to evaluate how well their coaches and activity directors are doing overall in helping them outside their sports or extracurricular activities. The results suggest that the coaches are doing a good job in this respect—83% of football and basketball players and 81% of student-athletes in other sports report that their coaches are doing fairly well or better. If we look specifically at the students who say their coaches and activity directors are performing excellently, 28% of football and basketball players and 24% of student-athletes in other sports respond affirmatively, as compared to 24% of the extracurricular students (see Figure 19).

In response to a similar question concerning satisfaction with the way their coach helped them improve as athletes, 72% of football and basketball players and 70% of other student-athletes report they are satisfied. In contrast, 88% of the extracurricular students report themselves satisfied with their activity directors.

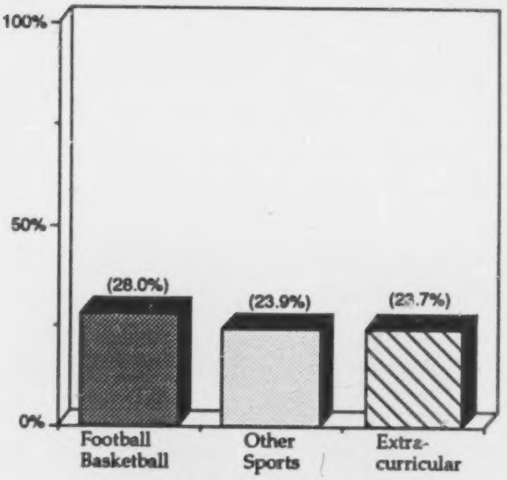

Figure 19. Students Reporting Coaches/Directors Doing an Excellent Job Helping in Areas Outside Their Main Activity

5. Academic Performance

Overview

What do student-athletes do academically and how well do they perform? We address these questions by examining several sources of information, such as college majors and grade-point averages (GPAs), as well as the perceptions of students regarding the influence of athletics or extracurricular activities on their academic work.

A clear pattern emerges from the variety of findings we have about the "student" portion of the student-athlete whole. Student-athletes are more likely than extracurricular students to struggle academically. Where there are differences among student-athletes, football and basketball players are more likely than other student-athletes to have academic difficulties, in spite of being more likely to attend educational skill-building courses and to report greater access to other educational resources (e.g., tutors and academic counselors). The differences among football and basketball players, other student-athletes, and extracurricular students are usually small, but they are reliable. Perhaps the clearest pattern of findings links the greater academic difficulties of football and basketball players to the more "successfully-competitive" programs. (Successfully-competitive is defined by the win-loss records and strengths of opponents over time for football and men's basketball programs.) Football and basketball players in more successfully-competitive programs are more likely to get educational help than those in less successfully-competitive programs. However, they are also more likely to experience difficulties in making academic work their top priority at college.

Courses and College Majors

Two important issues regarding the academic experiences of student-athletes center on (1) whether they are in courses with many other student-athletes, and (2) whether they are likely to pursue the same broad curriculum as other students on the campuses.

Courses taken by student-athletes

We find that some student-athletes, football and basketball players especially, are in classes with other student-athletes. However, there is also considerable overlap among the courses taken by student-athletes and the extracurricular students in our sample. We asked student-athletes, "Are you usually in courses with many other student-athletes?" We find that most college athletes are not likely to be in classes with many other student-athletes. About 67% of football and basketball players and 76% of other student-athletes report they are not. Football and basketball players, however, are much more likely than other student-athletes to say they are in classes with many other student-athletes (see Figure 20).

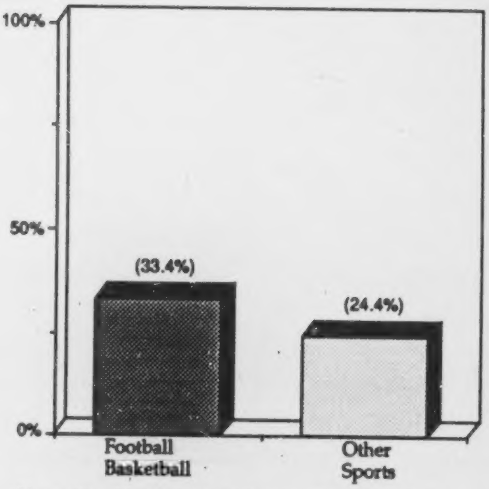

Figure 20. Student-Athletes Reporting They Are Usually in Courses with Many Student-Athletes

At the time of this report, the college transcripts of students at a randomly selected set of 12 of the 42 institutions were coded and available for analysis. (A future report will examine transcript data in more detail.) We selected the 12 institutions from across the three subdivisions of Division I, but oversampled Division I-A to assure that we could examine those athletics programs in greatest detail. We examined the transcripts to assess how much overlap there is among courses taken by student-athletes and extracurricular students. We randomly divided the transcript data from the 12 institutions into two sets, and used the first set to classify courses into those with student-athletes only, those with extracurricular students only, and those with both types of students. We then used the second half of the transcript data to examine the extent of the overlap in the courses taken by the two groups of students. We found that about 55% of the courses that student-athletes took were courses that, according to the first half of the data, extracurricular students also took. These findings give us a mixed picture concerning the course choices of student-athletes. The evidence suggests that student-athletes do not limit themselves exclusively to classes with other college athletes, but that there are some differences in the distribution of courses between student-athletes and comparison students.

College majors of student-athletes

Table 12 lists the college majors that students report they had at the time of the survey. The table includes only sophomores, juniors, and seniors because few freshmen had actually declared a major. The pattern is quite similar to that of the majors all students say they intended at the time they enrolled in college (see Table 2). Student-athletes are more likely to report majors in business, professional occupations (e.g., architecture, health sciences, home economics, protective services, and public affairs), and physical education, and less likely to report majors in arts and humanities, education, and engineering. About 8% of all student-athletes report a major in physical education, but fewer football and basketball players than other student-athletes report a physical education major.

Table 12.
Intended Degree at Present [1]

	Percent		
	Football Basketball	Other Sports	Extra-curricular
Business	27.5	30.2	14.4
Social Science	17.1	12.7	18.6
Professional Occupations	12.6	7.5	3.0
Communications	9.8	8.0	12.0
Engineering	6.7	9.5	12.5
Education	6.4	4.2	10.8
Physical Education	5.5	10.0	.2
Arts and Humanities	5.3	3.2	13.3
Computer/Information Sciences	1.9	4.6	4.8
Biological Sciences	1.6	3.8	4.7
Physical Sciences	.5	2.2	3.3

[1] Includes sophomores, juniors, and seniors. Major fields of study as reported by students were recoded into the more general categories shown. The r values are not available for these recoded groups.

Among football and basketball players, the most popular majors are in four groups: business, social science, professional occupations, and communications. These four together account for 67% of their reported majors. Football and basketball players are least likely to report majors in biological, physical, or computer sciences—these three fields account for 4% of the majors reported. In contrast, these three fields account for 11% of the majors reported by other student-athletes, and 13% of those reported by extracurricular students.

Grade-Point Averages and Course Performance

Student-athletes in general have slightly lower cumulative GPAs in college than extracurricular students, but they are not very different on other dimensions of academic performance. Football and basketball players in more successfully-competitive programs, however, perform less well than other football and basketball players on almost every measure of academic performance.

We converted the most recent cumulative GPA reported on transcripts from our subsample of 12 institutions to a four-point scale (4 = A, 3 =B, 2 = C, 1 = D). We calculated GPAs based on all courses taken by the students in our sample rather than only those that had both student-athletes and extracurricular students in them. (A future report will look at GPAs based on a core curriculum to partially control for different types of courses taken by the two groups.) Figure 21 shows that extracurricular students have, on average, higher GPAs than student-athletes.

Among student-athletes, football and basketball players have, on average, the lowest GPAs. The differences in GPAs among the groups are small, however—on the order of one-quarter to one-third of a grade. We do find that football and basketball players in more successfully-competitive programs have slightly lower average GPAs than their counterparts in less successfully-competitive programs, about one-quarter of a grade as shown in Figure 22.

Other measures of academic performance are shown in Table 13 and we find that roughly comparable percentages of student-athletes and extracurricular students say they have ever repeated courses, received incompletes, or been on academic probation. The percentages of football and basketball players, other student-athletes, and extracurricular students who report they have ever repeated courses in their college careers are shown in Figure 23. The figure shows that the differences are small.

On the other hand, there are reliable differences between football and basketball players, other student-athletes, and extracurricular students in whether or not they attend summer sessions . More football and basketball players than other student-athletes attend summer classes. More extracurricular students than other student-athletes attend these classes.

Although all of the measures of academic performance in Table 13 save two—found many courses too difficult and attended summer sessions—show no reliable differences between student-athletes and extracurricular students, there are consistent

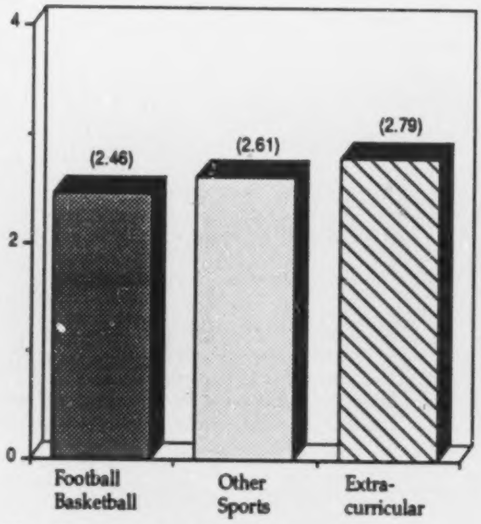

Figure 21. Cumulative Grade-Point Average at Subsample of 12 Institutions

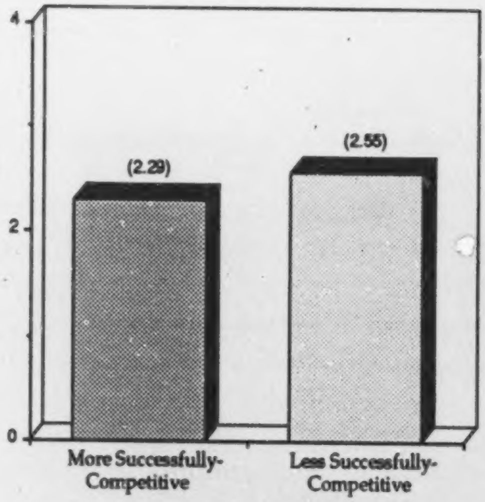

Figure 22. Cumulative Grade-Point Average of Football and Basketball Players in More and Less Successfully-Competitive Programs

Table 13.
Courses Taken and Course Performance

	Percent responding "Yes"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
At this school have you:						
Repeated one or more courses	38.7	40.7	36.3	.01	.01	.01
Attended summer sessions	32.0	23.4	32.4	.09*	.01	.08*
Ever been on academic probation	27.4	26.1	18.8	.02	.06	.07
Found many courses too difficult	25.6	23.1	19.3	.03	.05	.08*
Received an incomplete at least once	19.1	13.6	17.6	.07	.00	.05
Attended intersession classes	6.8	6.0	7.7	.01	.04	.02

* Statistically significant

links between these measures and the more or less successfully-competitive football and basketball programs. Specifically, football and basketball players in more successfully-competitive programs are more likely than those in less successfully-competitive programs to have (1) found many courses too difficult, (2) received incompletes, and (3) been on academic probation (see Table 14). For example, 34% of football and basketball players in more successfully-competitive programs have been on academic probation, as compared to 26% of football and basketball players in less successfully-competitive programs (see Figure 24).

Use of Educational Resources and Perceived Academic Demands

Student-athletes are more likely than extracurricular students to take basic educational skill-building classes. In addition, we find consistent evidence that student-athletes perceive that involvement in athletics makes it easier to gain access to academic resources (e.g., tutors and academic counselors) but harder to meet academic demands (e.g., keeping up with coursework and studying for exams). When there are differences, football and basketball players are more likely than other student-athletes to feel that being a college athlete makes it easier for them to gain access to academic resources but makes it harder for them to meet their academic demands.

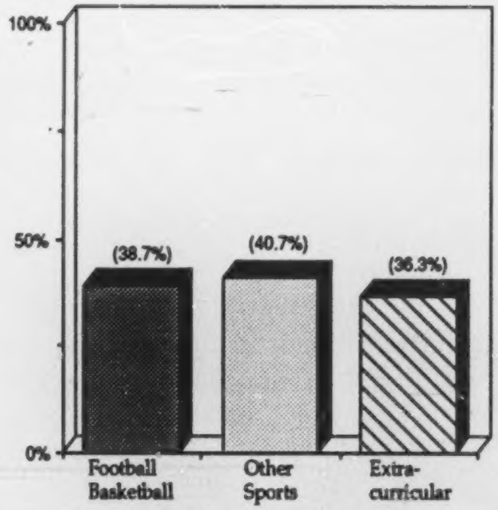

Figure 23. Students Reporting Repeating One or More College Courses

Table 14.
Courses Taken and Course Performance: Football and Basketball Players

At this school have you:	Percent responding "Yes" (1) More Successfully-Competitive	(2) Less Successfully-Competitive	Effect coefficients (correlations) (1) vs. (2) r
Attended summer sessions	42.8	27.9	.16*
Repeated one or more courses	41.0	39.5	.02
Ever been on academic probation	34.0	26.3	.08*
Found many courses too difficult	30.7	23.6	.08*
Received an incomplete at least once	23.5	17.0	.08*
Attended intersession courses	9.4	5.7	.07

* Statistically significant

These findings are related to successfully-competitive football and basketball programs in important ways. Football and basketball players in more successfully-competitive programs report that learning aids (e.g., tutors and academic counselors) are more available, but that it is even more difficult for them as athletes to meet the demands of their academic schedules.

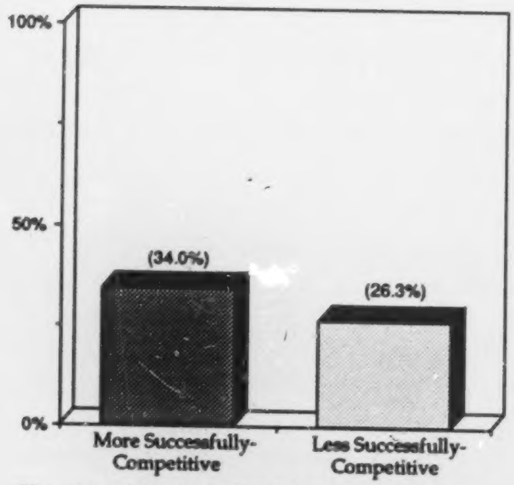

Figure 24. Football and Basketball Players in More and Less Successfully-Competitive Programs Who Say They Have Been on Academic Probation

Availability and use of educational resources

As Table 15 shows, about 60% of all student-athletes attend an orientation program for college studies or college life, and many of them take some kind of an academic skill-building class. More student-athletes take special study skills and basic skills review classes than do extracurricular students, and more football and basketball players take these courses than student-athletes in other sports (see Figure 25).

We examined how students perceive the influence of their sports or extracurricular activities on their academic performance. We find that student-athletes feel that being a college athlete makes it easier for them to get academic help (see Table 16). Substantially more student-athletes than extracurricular students say it is "easier" or "much easier" to get help from teaching assistants, to get help from tutors, to talk to academic counselors about their program, to get feedback on how well they are doing in class, and to choose the courses they want to take. Football and basketball players are more

Table 15.
Special Classes

Have you attended any of the following at this school?	Percent responding "Yes"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Orientation program for college studies or college life	59.8	61.0	76.0	.00	.12*	.13*
Special courses on taking notes, listening in class, preparing assignments	39.7	28.0	20.2	.10*	.15*	.02
Special courses to review basic skills--such as reading, writing, mathematics	27.6	25.7	18.7	.02	.09*	.05

* Statistically significant

likely than the other student-athletes to say it is easier to gain access to academic resources. For example, 26% of football and basketball players report that it is "much easier" for them to get help from tutors (see Figure 26).

The availability of educational resources is related clearly to whether or not a college athlete's program is successfully competitive (see Table 17). Football and basketball players in more successfully-competitive programs say it is easier to get help from tutors, to talk to academic counselors about their program, to get feedback on how well they are doing in courses, and to choose the courses they want to take. For example, about 39% of football and basketball players in more successfully-competitive programs, versus 18% of those in less successfully-competitive programs, say it is "much easier" to get help from tutors (see Figure 27).

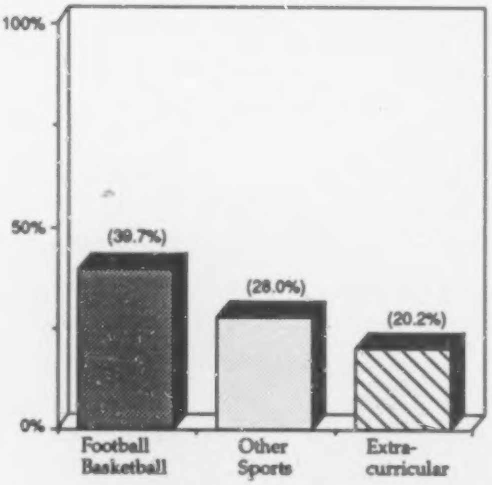

Figure 25. Students Reporting Attending Special Courses on Taking Notes, Listening in Class, Preparing Assignments

Perceived obstacles to learning

On average, student-athletes say that being a college athlete makes it harder for them to prepare for classes and to excel in their academic work. For example, 27% of football and basketball players and 26% of other student-athletes, as compared to 14% of extracurricular students, say it is "much harder" to get the grades they are capable of getting (see Table 18). Football and basketball players, as compared to extracurricular students, feel it is "much harder" to be regarded as a serious student by professors, to keep up with their coursework, to make academics their top priority, to get the grades they are capable of getting, and to study for exams.

Table 16.
Perceived Availability of Academic Resources

Do you feel it is "Easier" or "Harder" for you as a college athlete/ extracurricular student to:	Percent responding "Easier" or "Much Easier"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Get help from tutors	65.5	50.7	14.8	.13*	.36*	.35*
Choose the courses you want to take	38.7	33.7	16.7	.03	.10*	.11*
Get feedback on how well you are doing in courses	33.3	25.3	14.4	.05	.12*	.11*
Talk to academic counselors about your program	28.7	19.4	16.9	.06	.07*	.09*
Get help from teaching assistants	22.4	19.5	10.5	.01	.07*	.09*

* Statistically significant

Figure 28 shows that nearly three times as many football and basketball players as extracurricular students feel it is "much harder" to keep up with coursework (22% versus 8%). There is generally little difference in perceived obstacles to learning between football and basketball players and other student-athletes. The one exception is striking. Football and basketball players are much more likely than other student-athletes to feel it is "harder" or "much harder" to be regarded as a serious student by professors (55% of football and basketball players as compared to 38% of other student-athletes, see Figure 29). In a future report, we will examine whether this perception is related to courses taken and GPAs, or if it is independent of academic performance.

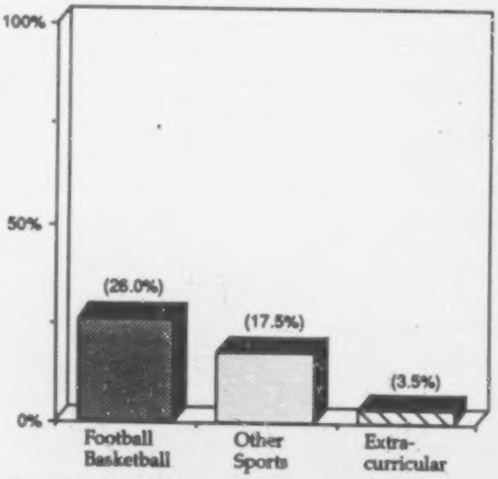

Figure 26. Students Reporting It Is "Much Easier", as a College Athlete, to Get Help from Tutors (For extracurricular students, the question was phrased,"...as an extracurricular student...")

Football and basketball players in more successfully-competitive programs are more likely than those in less successfully-competitive programs to feel it is difficult to be regarded as a serious student by professors, to keep up with coursework, and to get the grades they are capable of getting (see Table 19). Figure 30 shows that 62% of football and basketball players in more successfully-competitive programs, as opposed to 49% in less successfully-competitive programs, feel it is more difficult to be regarded as a serious student by professors. Being in a more successfully-competitive program

Table 17.
Perceived Availability of Academic Resources: Football and Basketball Players

Do you feel it is "Easier" or "Harder" for you as a college athlete to:	Percent responding "Easier" or "Much Easier"		Effect coefficients (correlations)
	(1) More Successfully-Competitive	(2) Less Successfully-Competitive	(1) vs. (2) r
Get help from tutors	78.0	56.1	.27*
Choose the courses you want to take	48.7	33.6	.13*
Get feedback on how well you are doing in courses	39.9	29.2	.09*
Talk to your academic counselors about your program	35.1	25.0	.07*
Get help from teaching assistants	25.2	20.7	.03

* Statistically significant

is related to the way football and basketball players see themselves viewed by their professors.

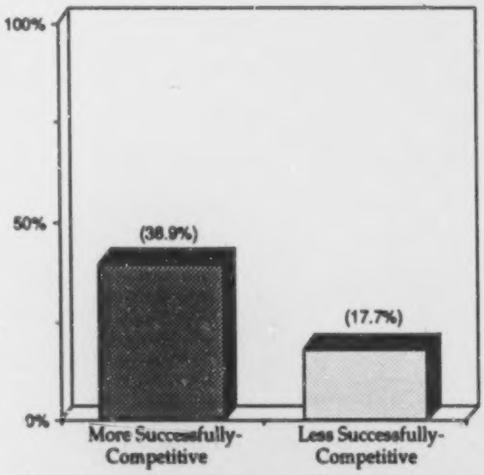

Figure 27. Football and Basketball Players in More or Less Successfully-Competitive Programs Reporting it is "Much Easier" as a College Athlete to Get Help from Tutors

Satisfaction with Educational Experiences and Achievements

Student-athletes and extracurricular students are generally satisfied with their educational experiences (see Table 20). Almost 90% of each group are satisfied with their current courses, about 95% are satisfied with their college major, and 66% are satisfied with their performance in courses. There are no reliable differences in satisfaction between student-athletes and extracurricular students.

About 25% of the students in all groups say they are "totally satisfied" with their courses this term, and nearly 65% say they are "more satisfied than dissatisfied." Excluding freshmen, who typically have not declared a major, about 50% of the students in each group say they are "totally satisfied" with their choice of a major, and nearly all remaining students say they are "more satisfied than dissatisfied." Less than 5% of students in any group say they are not satisfied.

Student-athletes in general and extracurricular students are similar in their reported satisfaction with current course performance. Football and basketball players are similar to other student-athletes in their reports. More than 66% of the students in

Table 18.
Perceived Obstacles to Learning

. Do you feel it is "Easier" or "Harder" for you as a college athlete/ extracurricular student to:	Percent responding "Much Harder" (1) Football Basketball	(2) Other Sports	(3) Extra-curricular	Effect coefficients (correlations) (1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Get the grades you are capable of	27.0	25.5	14.0	.00	.14*	.10*
Keep up with coursework	22.1	19.3	7.7	.01	.15*	.15*
Make academics your top priority	21.9	17.1	11.6	.03	.08*	.04
Study for exams	19.4	16.5	9.3	.03	.11*	.05
Prepare for classes	14.2	10.6	6.9	.02	.06	.02
Be regarded as a serious student by professors	11.4	5.1	1.0	.14*	.40*	.36*

• Statistically significant

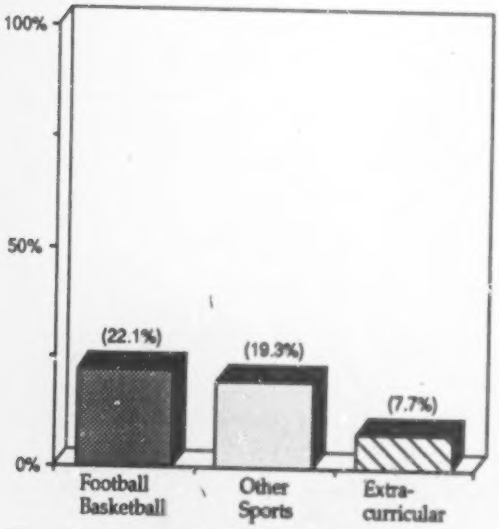

Figure 28. Students Reporting It Is "Much Harder", as a College Athlete to Keep Up with Coursework (For extracurricular students, the question was phrased,"...as an extracurricular student...")

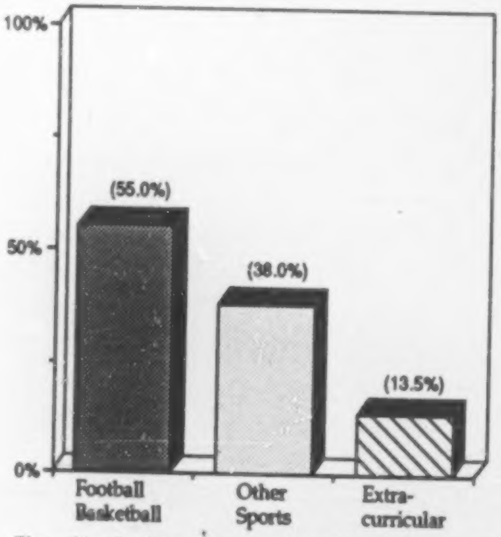

Figure 29. Students Reporting It Is "Harder" or "Much Harder", as a College Athlete, to be Regarded as a Serious Student by Professors (For extracurricular students, the question was phrased,"...as an extracurricular student...")

each group say they are either "totally satisfied" or "more satisfied than dissatisfied" with their current course performance. Football and basketball players, other student-athletes, and extracurricular students are also similar in their reports of satisfaction with overall academic performance at college (see Figure 31). Neither satisfaction with present course performance nor satisfaction with overall academic performance is substantially related to participating in more or less successfully-competitive football and basketball programs. In a future report, we will explore further how it is that student-athletes receive somewhat lower grades than extracurricular students on the one hand, but on the other, show no differences in their satisfaction with their academic performance.

Table 19.
Perceived Obstacles to Learning: Football and Basketball Players

Do you feel it is "Easier" or "Harder" for you as a college athlete to:	Percent responding "Easier" or "Much Easier"		Effect coefficients (correlations)
	(1) More Successfully-Competitive	(2) Less Successfully-Competitive	(1) vs. (2) r
Get the grades you are capable of	31.2	23.5	.07*
Keep up with coursework	26.4	17.9	.08*
Make academics your top priority	25.1	18.7	.06
Study for exams	23.3	16.1	.07
Prepare for class	16.5	11.5	.05
Be regarded as a serious student by professors	13.4	8.9	.12*

* Statistically significant

Table 20.
Academic Satisfaction

How satisfied are you with:	Percent responding "Totally Satisfied" or "More Satisfied Than Dissatisfied"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Your choice of major	95.9	95.3	94.8	.00	.01	.02
The courses you are taking this term	87.7	88.8	87.6	.00	.05	.05
Your performance in courses this term	69.6	66.4	68.4	.01	.01	.02
Your overall academic performance at this school	64.4	62.6	72.4	.02	.05	.04

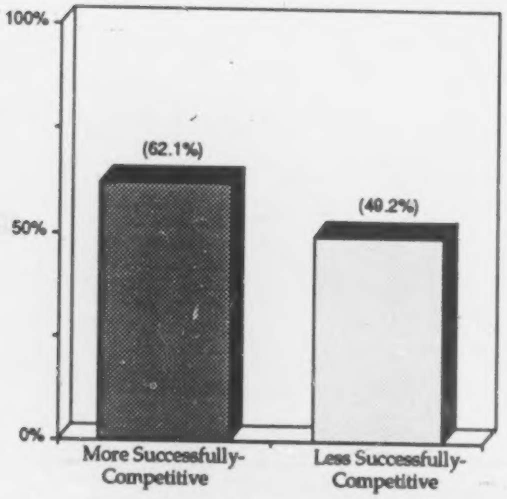

Figure 30. Football and Basketball Players in More and Less Successfully-Competitive Programs Reporting It Is "Harder" or "Much Harder" as a College Athlete to be Regarded as a Serious Student

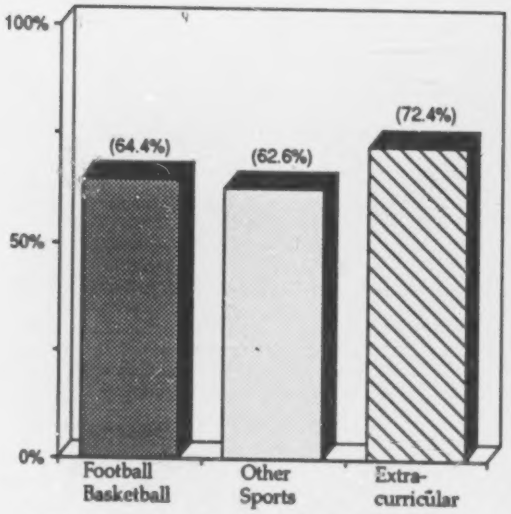

Figure 31. Students Reporting "Total Satisfaction" or "More Satisfied Than Dissatisfied" with Overall Academic Performance

6. Health and Personal Development

Overview

Physical and mental health

Physical and mental health are critical factors affecting performance. The pressures and time demands on students at college can lead to problems in these areas. This could be particularly true for student-athletes and extracurricular students, who, as we have seen, are heavily involved in activities that take time and can involve pressures.

We find that student-athletes and extracurricular students are generally similar in their reports of overall health status. However, we also find that student-athletes are injured more often as a result of their involvement in sports and report feeling pressure to ignore these injuries more often. Football and basketball players report they have experienced more incidents of both physical and mental abuse than other student-athletes and extracurricular students, although the vast majority of football and basketball players report they have never experienced physical abuse on campus and about one-half say they have never experienced mental abuse.

Personal growth and development

The involvement of student-athletes and extracurricular students in their main activities may also affect the types of opportunities for personal growth that are available to them. We hear much about team leaders in sports, for example, but these leadership responsibilities can be open to only some of the participants. If so, then most athletes may find their opportunities to take leadership roles diminished in two ways—first because the team-leader roles in their main sports are taken by others, and second because they have little discretionary time beyond what is committed to their main sports to develop other leadership possibilities. Coupled with physical or mental health problems, these lost opportunities could result in students feeling extreme frustration.

We find that student-athletes are different from extracurricular students in their perceptions of how easy or difficult it is for them to take advantage of personal development opportunities. In most instances, student-athletes perceive it is more difficult for them, because they are athletes, to take advantage of these opportunities. In the area of rewards and recognition, however, student-athletes perceive it is easier for them to earn praise, and this is especially true at institutions with successfully-competitive football and basketball programs.

Health Status and Satisfaction with Health Care

General health

Student-athletes report feeling about as healthy as extracurricular students—they are not reliably different in their reports of bother from colds, sleeping problems, and eating problems (e.g., starvation, extreme weight loss). Football and basketball players, however, report being bothered more from extreme tiredness or exhaustion than student-athletes in other sports (see Table 21). At institutions with more successfully-competitive programs, football and basketball players are even more likely to report extreme tiredness or exhaustion (see Table 22). Football and basketball players also report greater bother from dental problems than other student-athletes (see Table 21);

Table 21.
Health - Potential Problems

	Percent responding "Bothered" or "Greatly Bothered"			Effect coefficients (correlations)		
Are you bothered by the following health problems?	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Extreme tiredness, exhaustion	44.8	35.6	39.4	.08*	.04	.03
Colds	29.5	27.5	22.3	.01	.05	.01
Sleeplessness or insomnia	21.8	21.2	14.5	.01	.04	.01
Excessive overeating or starving yourself	13.7	12.6	15.6	.00	.01	.00
Dental problems	9.7	5.9	6.2	.08*	.06	.04

* Statistically significant

Table 22.
Selected Health Threats and More and Less Successfully-Competitive Athletic Programs: Football and Basketball Players

	Percent responding "Bothered" or "Greatly Bothered"		Effect coefficients (correlations)
Are you bothered by the following health problems?	(1) More Successfully-Competitive	(2) Less Successfully-Competitive	(1) vs. (2) r
Extreme tiredness, exhaustion	49.3	41.3	.09*
Dental problems	10.7	9.3	.04

* Statistically significant

Table 23.
Health - Preventive Practices

Do you feel it is easier for you as a college athlete/extracurricular student to do the following?	Percent responding "Easier" or "Much Easier"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Keep in good physical shape	95.6	95.6	46.0	.02	.52*	.60*
Avoid drugs	38.9	46.2	36.2	.07*	.00	.10*
Avoid alcohol	21.3	25.4	19.9	.07	.00	.09*
Get medical treatment	87.4	80.0	13.5	.06	.51*	.56*
Get dental care	38.2	21.6	—	.11*	—	—
Get glasses or contact lenses (if needed)	36.3	24.2	—	.08	—	—
Eat well	52.5	29.2	—	.19*	—	—

* Statistically significant

however, these reports may be due to the greater availability (and hence use) of dental care services (including dental examinations) for these student-athletes.

From the information reported in Table 23, we may also conclude that student-athletes generally are much more likely than extracurricular students to maintain their health status. About 96% of football and basketball players and student-athletes in other sports report finding it easier to keep in good physical condition, as compared to only 46% of extracurricular students. In the same sense, 87% of football and basketball players and 80% of other student-athletes report they feel it is easier to obtain medical treatment when it is needed, as compared to only 14% of extracurricular students. As noted previously, football and basketball players are more likely than other student-athletes to say it is easier for them as athletes to obtain the services of dentists; this finding is also true for eye doctors.

Because anyone can harm their health by using drugs or drinking alcohol excessively, we asked students whether participation in sports or extracurricular activities makes it easier or more difficult to avoid these substances. Overall, 39% of football and basketball players, 46% of other student-athletes, and 36% of extracurricular students report that being an athlete or an extracurricular student makes it easier to avoid drugs. However, 12% of football and basketball players, 6% of other student-athletes, and 7% of extracurricular students report that being an athlete or extracurricular student makes it harder to avoid drugs. Football and basketball players and extracurricular students provide comparable ratings of the ease or difficulty of avoiding alcohol, although student-athletes in other sports are slightly more likely than either group to report it is easier to avoid as a function of being an athlete.

Table 24.
Health - Physical Injuries

	Percent responding "Yes"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
In the current school year:						
Have had injuries	55.7	48.0	20.1	.06	.27*	.28*
Of those injured:						
Injuries were major sport/activity related	93.7	88.6	59.2	.08	.32*	.29*
Felt pressure to ignore injuries	67.8	58.8	40.1	.07	.14*	.10
Pressure was "Extremely Intense" or "Intense"	70.2	49.7	38.5	.13*	.11	.06
In general:						
Medical care was satisfactory or better	80.7	76.0	49.6	.07	.33*	.32*

* Statistically significant

Injuries

Because student-athletes are physically active in their sports, it is not surprising that they report more injuries related to their sports participation than do extracurricular students for their activities (see Table 24 for all injuries and Figure 32 for injuries related to participation). Nevertheless, it is noteworthy that about 50% of all student-athletes report having suffered an injury as a function of participation in sports. Student-athletes also report feeling "intense" or "extremely intense" pressure to ignore their injuries (see Figure 33); however, we do not know if this pressure is externally applied, applied by the student-athletes themselves (e.g., as a function of their personal competitiveness), or a combination of both. We do know that, when injuries or other health problems occur, student-athletes are likely to report greater satisfaction with the medical care they receive than extracurricular students (see Figure 34).

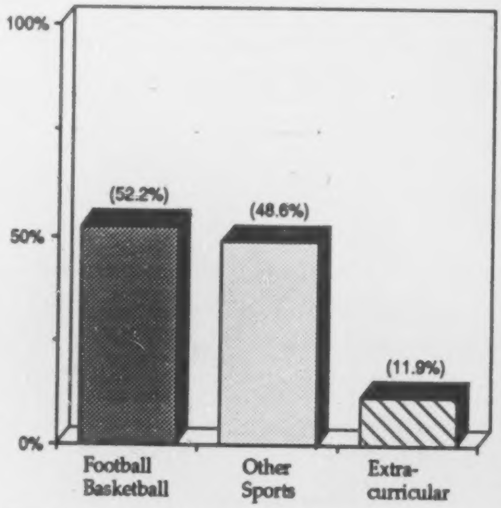

Figure 32. Students Reporting Suffering Injuries Due to Participation in Main Sport or Activity

We wondered whether the successfully-competitive football and basketball programs were related to either reported injury rates or reported pressures to ignore injuries. We found no discernible effect. Specifically, football and basketball players in more successfully-competitive programs are no more likely to report injuries or pressures to ignore injuries than are other football and basketball players. The percentages of student-athletes in these programs reporting pressure to ignore injuries are the same, as are the reported intensities of the applied pressures.

Psychological and Emotional Well-Being

Discrimination

We will issue special reports early in 1989 on issues pertaining to the experiences of black student-athletes and female student-athletes. In this discussion of summary findings from the national survey, however, it is important to examine general differences and similarities among student-athletes and extracurricular students on the matters of discrimination by race or by gender. Our results may be simply stated—there are no reliable differences between student-athletes and extracurricular students on measures of perceived discrimination, and there are no differences between the groups in terms of perceived racial isolation. That is, black student-athletes and female student-athletes perceive no more isolation or discrimination than black students and female students who participate in extracurricular activities (see Table 25).

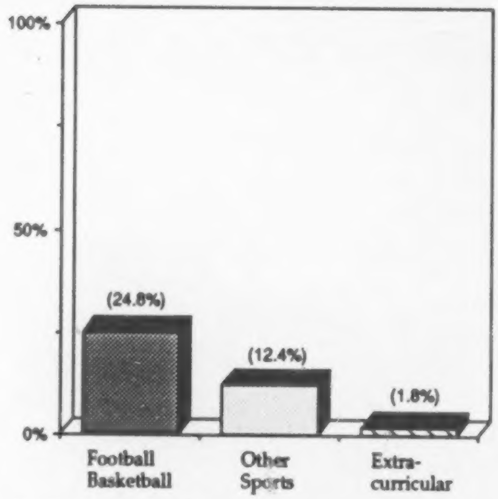

Figure 33. Students Reporting Pressure to Ignore Injuries

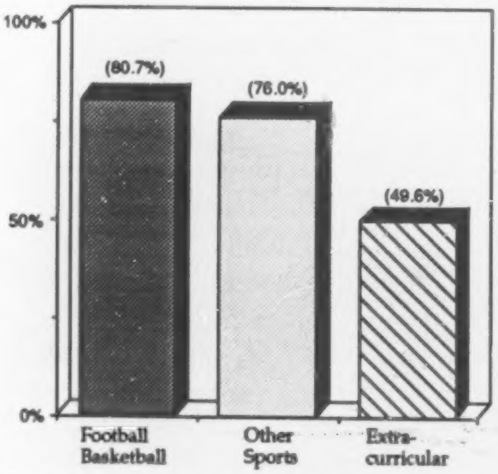

Figure 34. Students Reporting Satisfaction with Medical Care They Have Received

Physical and mental abuse

We asked students whether they had ever experienced physical or mental abuse at their institutions. These terms may cover a wide range of experiences, and we did not define them in a particular way. Rather, we allowed respondents to define them in any way that they found appropriate. The response options to these questions ranged from "never" to "frequently." The vast majority of student-athletes and extracurricular students report never having experienced physical abuse, and the majority of both groups report never having experienced mental abuse (see Table 25). Because of the

Table 25.
Health - Psychological and Emotional Well Being

	Percent with at least one experience since enrolling			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
All students:						
A sense you are different from other students	90.5	84.0	87.7	.13*	.01	.10*
A feeling that you lack control over your life	84.1	76.6	80.8	.12*	.07	.08
Isolation from other students	54.5	40.5	49.8	.12*	.07	.07
Mental/emotional abuse	49.8	39.3	37.8	.13*	.11*	.01
Physical abuse	20.1	9.6	8.1	.12*	.13*	.01
Black students:						
Racial isolation	63.0	66.3	67.4	.01	.01	.07
Racial discrimination	52.1	54.6	62.4	.00	.03	.02
Female students:						
Sexual discrimination	35.0	28.7	37.3	.08	.03	.04

* Statistically significant

seriousness of any reported incidents of abuse, however, we examined the differences in rates of reported abuse among football and basketball players, student-athletes in other sports, and extracurricular students. The percentages of students in these three groups reporting one or more experiences of abuse at their institutions are shown in Figures 35 and 36.

As seen in Figure 35, 20% of the football and basketball players report ever having been physically abused compared to 10% for other student-athletes and 8% for the extracurricular students. As seen in Figure 36, a similar pattern holds for mental abuse. Roughly 50% of the football and basketball players report having been mentally abused, compared to 39% of the other student-athletes and 38% of the extracurricular students.

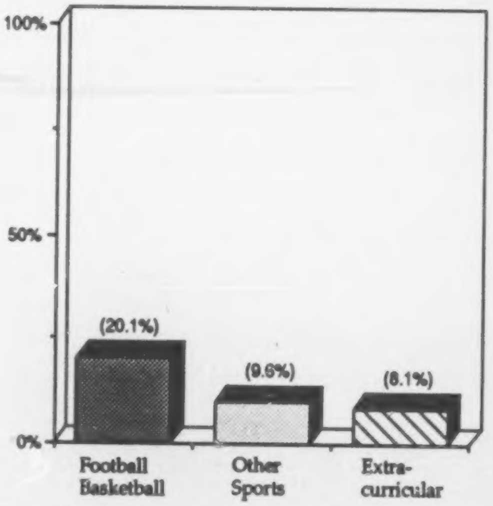

Figure 35. Students Reporting One or More Incidents of Physical Abuse

From Table 25, we see that football and basketball players say they experience greater isolation from other students than do student-athletes in other sports. They are not reliably different from extracurricular students, however, in this feeling of isolation.

We find that successfully-competitive football and basketball programs at a college or university may be related perceptions of abuse and isolation. Table 26 presents the percentages of football and basketball players in these programs reporting "occasional" or "frequent" (i.e., more than six) experiences of abuse and feelings of isolation and difference. About 11% of football and basketball players in more successfully-competitive programs report experiences of physical abuse, as compared to about 6% in less successfully-competitive programs; and the difference between these two groups in reported mental abuse is about 6%. Football and basketball players in more successfully-competitive programs also are more likely to report feelings of isolation from other students than are participants in less successfully-competitive programs; 30% of those in more successfully-competitive programs report they feel isolated occasionally or frequently, as compared to about 21% in less successfully-competitive programs.

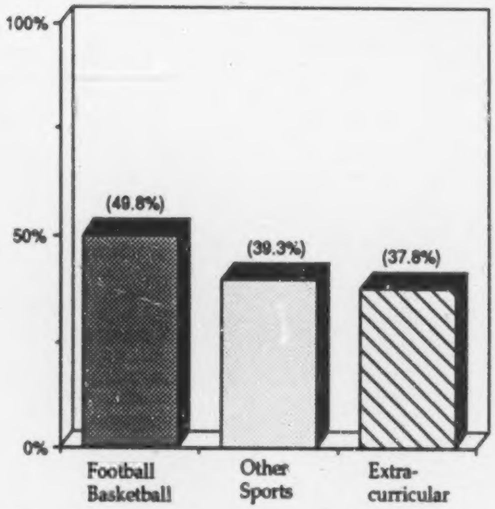

Figure 36. Students Reporting One or More Incidents of Mental Abuse

Psychological measures

To establish baseline measures for future comparisons and to assess similarities and differences in the current psychological and emotional well-being of student-athletes and extracurricular students, we asked them to complete four psychological scales covering the areas of self-esteem, depression, anxiety, and perceived locus of control.

Table 26.
Psychological Well-Being and Successfully-Competitive Programs: Football and Basketball Players

	Percent with at least six experiences since enrolling		Effect coefficients (correlations)
	(1) More Successfully-Competitive	(2) Less Successfully-Competitive	(1) vs. (2) r
A sense you are different from other students	73.4	63.5	.11*
A feeling that you lack control over your life	54.3	45.6	.09*
Isolation from other students	30.4	20.9	.12*
Mental/emotional abuse	25.1	19.6	.11*
Physical abuse	11.2	5.8	.10*

* Statistically significant

Table 27.
Psychological Scales

	Mean psychological scale composite score			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) *r*	(1) vs. (3) *r*	(2) vs. (3) *r*
STAI: Trait anxiety composite	37.5	38.0	36.7	.02	.02	.05
Rosenberg: Self-esteem composite	14.6	15.2	14.9	.06	.03	.04
CES-D: Depression composite	13.0	13.0	11.6	.02	.04	.05
Locus of control scales						
Internal control composite	38.2	38.4	39.1	.02	.06	.06
Powerful others control composite	21.2	19.3	17.6	.08*	.10*	.04
Chance control composite	18.5	19.0	15.9	.02	.11*	.10*

* Statistically significant

(These measures are fully described in the companion volume to this report, which describes the methods used in the study.) As indicated on Table 27, we find no reliable differences between the groups on the first three of these scales—that is, student-athletes in football and basketball and in other sports report about the same levels of self-esteem, depression, and anxiety. In addition, the mean scores on the depression and anxiety scales for the three student groups are within the published norms for these scales, signifying that the three groups are not outside the "normal" ranges of scores.

The remaining psychological scale, which measures locus of control, provides three measures of "where" the students attribute the causes for their actions—to chance, to external forces, or to internal factors (e.g., personal drive). We find evidence that student-athletes more often than extracurricular students perceive chance factors and powerful other people in their environment as having greater control over their actions. One might convincingly argue that student-athletes are somewhat realistic about the power of other people, given the amount of direction they typically can expect to receive from coaches and coaching staffs. Student-athletes are, however, not reliably different from extracurricular students in their tendency to assign causal explanations for their actions to their own initiative.

Opportunities for Personal Growth

Given the possible differences in the demands and perceived pressures of participating in intercollegiate athletics versus extracurricular activities, we examined whether students participating in these activities differed with respect to personal growth opportunities. Specifically, we wanted to know whether students feel that participating in their activities makes it easier or more difficult for them to take advantage of the sorts of personal growth opportunities that are typically associated with the college experience.

Twenty items were used to assess student feelings in this area, and we discuss them here under the four categories that were suggested by preliminary factor analyses of the data: (1) leadership and personal development, (2) sociability, (3) social assertiveness, and (4) rewards and recognition from others.

Leadership and personal development

Student-athletes find it less easy to assume leadership responsibilities and much more difficult to take responsibility for others than do extracurricular students (see Table 28). While we do not know whether student-athletes are being provided with more leadership opportunities in their sports than they could expect in other areas, it is clear that they find it more difficult to assume leadership roles in their sports than do extracurricular students in their activities. For example, almost 18% fewer football and basketball players report it is "easier" or "much easier" for them to assume these roles than extracurricular students.

Student-athletes also report it is more difficult for them as athletes to develop new abilities and skills. For example, 24% fewer football and basketball players report it is "easier" or "much easier" for them to learn these abilities and skills than extracurricular students.

Football and basketball players find it more difficult as athletes to exercise self control or restraint. In this they differ from student-athletes in other sports as well as

Table 28.
Opportunities for Personal Growth: Leadership and Personal Development

	Percent responding "Easier" or "Much Easier"			Effect coefficients (correlations)		
Is it easier or harder for you, as a student-athlete/extracurricular activity student to do the following?	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Take on leadership responsibility	66.0	60.2	83.7	.06	.22*	.38*
Develop new abilities/skills	62.6	59.8	86.1	.02	.23*	.31*
Learn about yourself	62.1	65.1	78.3	.03	.16*	.19*
Learn from your mistakes	60.3	60.2	80.7	.00	.18*	.22*
Set and achieve personal goals	57.1	60.7	62.1	.06	.07*	.04
Take responsibility for others	45.3	36.0	71.2	.06	.22*	.36*
Exercise self control	39.3	44.4	55.8	.07*	.14*	.05

* Statistically significant

Table 29.
Opportunities for Personal Growth: Sociability

	Percent responding "Easier" or "Much Easier"			Effect coefficients (correlations)		
Is it easier or harder for you, as a student-athlete/extracurricular activity student to do the following?	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Have close friends who will probably be friends forever	53.8	53.0	61.2	.02	.09*	.15*
Be liked by others for just being yourself	34.6	34.8	60.5	.02	.20*	.29*
Talk about personal problems with others	23.8	19.1	35.8	.01	.13*	.21*

* Statistically significant

from extracurricular students. Football and basketball players also find it less easy as student-athletes to set and achieve personal goals than do extracurricular students (i.e., 57% of football and basketball players versus 62% of extracurricular students find it "easier" or "much easier").

Sociability

Student-athletes also find it more difficult than extracurricular students to gain the benefits from social interactions with other students at their institution (see Table 29). In particular, many fewer student-athletes report it is easy for them as athletes to be liked by others for just being themselves. Only about 35% of football and basketball players and student-athletes in other sports report that it is "easier" or "much easier" for them to be liked for just being themselves, as compared to 61% of extracurricular students. Student-athletes also report that it is less easy for them to talk with others about their personal problems and concerns (e.g., 24% of football and basketball players and 19% of student-athletes in other sports as compared to 36% of extracurricular students).

Assertiveness

With respect to social assertiveness, student-athletes report that it is more difficult for them as athletes to get to know other students and to speak their minds (see Table 30). For example, only about 40% of football and basketball players and 29% of other student-athletes report it is easier for them to speak their minds, as compared to 66% of extracurricular students. We may speculate that the tendency to avoid speaking one's mind is related to the belief of more of these students that powerful others are in control of their lives. However, additional data and further analyses would be required to

Table 30.
Opportunities for Personal Growth: (Social) Assertiveness

Is it easier or harder for you, as a student-athlete/extracurricular activity student to do the following?	Percent responding "Easier" or "Much Easier"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Get to know other students	59.6	59.0	83.0	.01	.24*	.31*
Get dates	55.4	48.6	42.3	.06	.07	.03
Speak your mind	39.6	28.8	65.9	.02	.23*	.34*

* Statistically significant

confirm this relationship.

Rewards and recognition from others

As shown in Table 31, student-athletes, because they are athletes, do find it easier to travel to new places than do extracurricular students because of their extracurricular pursuits. Football and basketball players in particular report that it is easier for them to get to know people of other races and to receive special treatment from local townspeople and merchants (see Figure 37). Seventy-five percent of football and basketball players report it is easier or much easier for them to earn praise or recognition for their abilities and, although this percentage is slightly lower than the 80% for extracurricular

Table 31.
Opportunities for Personal Growth: Rewards and Recognition from Others

Is it easier or harder for you, as a student-athlete/extracurricular activity student to do the following?	Percent responding "Easier" or "Much Easier"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Travel to new places	84.3	90.4	66.3	.09*	.11*	.29*
Earn praise or recognition for your abilities	74.7	78.7	80.0	.04	.12*	.16*
Get to know people of different races	67.8	59.4	55.8	.07*	.06	.05
Get special treatment from local townspeople and merchants	65.2	49.5	38.6	12*	.14*	.02

* Statistically significant

Table 32.
Opportunities for Recognition and Successfully-Competitive Programs: Football and Basketball Players

Is it easier or harder for you, as a student-athlete/extracurricular activity student to do the following?	Percent responding "Easier" or "Much Easier" (1) More Successfully-Competitive	(2) Less Successfully-Competitive	Effect coefficients (correlations) (1) vs. (2) r
Travel to new places	87.6	82.0	.09*
Earn praise or recognition for your abilities	76.5	72.0	.07*
Get to know people of different races	70.7	65.1	.08*
Get special treatment from local townspeople and merchants	70.2	60.9	.10*

* Statistically significant

students who report the same, it is clear that both groups are receiving a great deal of praise for their accomplishments.

Successfully-competitive football and basketball programs seem to have a small but systematic effect on football and basketball players' perceptions in this area (see Table 32). Football and basketball players in more successfully-competitive programs are slightly more likely to report that it is easier for them to earn praise and recognition for their abilities, to travel to new places, to get to know people of different races, and to get special treatment from local townspeople and merchants, than football and basketball players in less successfully-competitive programs.

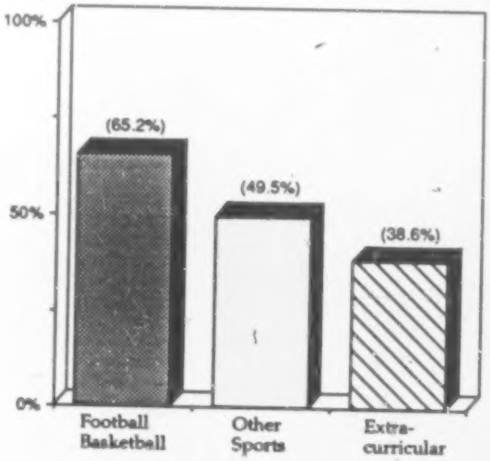

Figure 37. Students Reporting Receiving Special Treatment from Local Townspeople

7. Social Activities and Interpersonal Development

Overview

One way of understanding the college experiences of student-athletes is to examine how well integrated they are into the campus community. The housing and socialization patterns of student-athletes, for example, may be reflected in their feelings of sociability and isolation. In addition, the types of social activities that student-athletes engage in at college may define how well they develop interpersonally.

A minority of college athletes live with student-athlete roommates in housing that contains mostly other student-athletes. Some are required to do so. A minority of football and basketball players are required eat their meals with their teammates or other student-athletes.

Although the majority of football and basketball players believe that living with other student-athletes is a positive arrangement, such arrangements may contribute to feelings of isolation. This sense of isolation may be heightened by the limited social circles of football and basketball players. These student-athletes are more likely to spend their free time with teammates talking about sports. If they have personal problems, they are more likely to confide in their teammates.

Housing and Roommates

Although it is common for college students to live and socialize with others who have similar interests, our results indicate that this pattern is particularly pronounced among student-athletes. We asked student-athletes if they live with one or more roommates. If they said yes, we asked if any of their roommates are other teammates or other student-athletes. If they said yes to this question as well, we asked if they are required to live with teammates or other student-athletes. At 34 of the 42 institutions in our sample, some student-athletes say they are are required to live with other student-athletes. As Table 33 indicates, close to 80% of all student-athletes live with one or more roommates. And of those student-athletes who have roommates, about two-thirds (or over 50% of all student-athletes) report that one or more of their roommates is a teammate or other student-athlete.

While this pattern holds for all student-athletes, football and basketball players are more likely than other student-athletes or extracurricular students to

- live in housing owned or run by the school
- live in housing in which most of the residents are also student-athletes

Table 33.
Dorm/Housing

	Percent responding "Yes"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Q1. Do you live with one or more roommates?	77.7	79.2	64.6	.01	.12*	.16*
Q2. (If yes to Q1) Are one or more of your roommates teammates or other student-athletes/activity mates?	60.2	45.5	42.6	.20*	.09*	.16*
Q3. (If yes to Q1 and Q2) Are you required to live with teammates or other student-athletes/students in extracurricular activities?	19.3	9.0	2.0	.11*	.22*	.04
Q4. Are you required to eat most meals with teammates or other student-athletes?	28.0	4.6	—	.24*	—	—
Q5. Do you live in housing owned or run by the school?	75.5	67.9	64.7	.08*	.08	.01
Q6. (If yes to Q5) Are most of the students in your dorm/housing athletes?	31.3	17.0	—	.13*	—	—
Q7. All things considered, do you think it's better for student-athletes/students in extracurricular activities to live together?	59.7	55.9	58.8	.04	.01	.07

* Statistically significant

Note: Questions 4 and 6 were not presented to extracurricular students.

- have a roommate who is also a student-athlete

Football and basketball players are also more likely to say they are required to live and eat with other student-athletes (see Figures 38 and 39). Note that the percentages in Figure 38 refer to the total populations, even though the responses were filtered by a yes or no question.

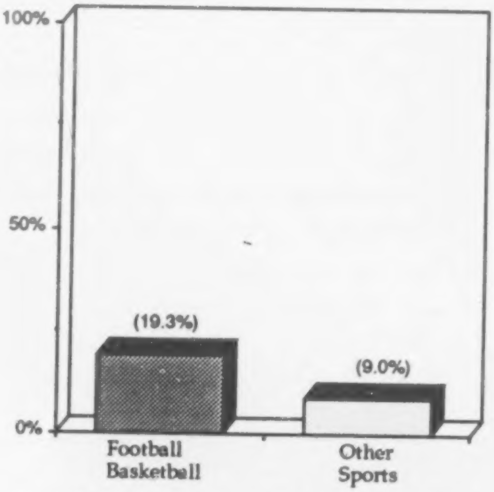

Figure 38. Student-Athletes Required to Live with Teammates or Other Student-Athletes

Given these findings, it is important to assess how student-athletes evaluate their situations (i.e., do they think it is good for student-athletes to live together), and, in a more objective sense, to assess how their living patterns affect their abilities to develop interpersonally and get the most out of college life.

We asked students, "All things considered, do you think it's better for student-athletes to live together?" Overall, student-athletes respond favorably to this question. We do find differences between student-athletes who are required to live together and those who are not but have student-athlete roommates nonetheless. Among student-athletes who are not required to live with their student-athlete roommates, approximately 63% are in favor of student-athletes living together. Among those who say they are required to live together, approximately 76% are in favor of this arrangement. Perhaps this reflects feelings of security in living with others who share so much in common. Whatever the reason, it is clear that the majority of student-athletes believes that living with other student-athletes is a positive arrangement.

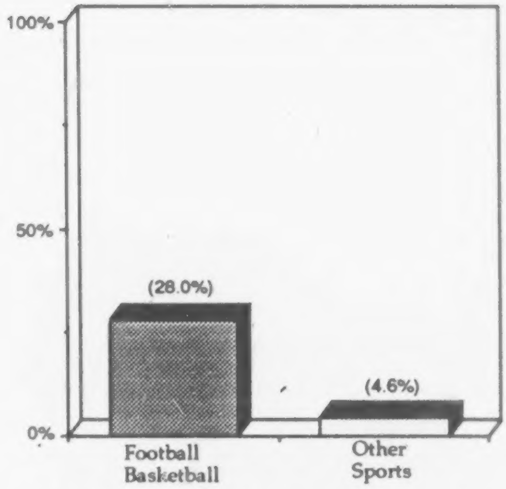

Figure 39. Student-Athletes Required to Eat Most Meals with Teammates or Other Student-Athletes

We noted earlier that football and basketball players report more frequent feelings of isolation. It is important to investigate whether living with other student-athletes contributes to these feelings of isolation. Our results, which control for differences due to race, gender, and class standing, indicate an important link between living in housing with mostly other student-athletes and feelings of isolation for the football and basketball players (see Figure 40). Specifically, football and basketball players who live in housing with many other student-athletes are more likely than those who live in housing with other kinds of students to report frequent or occasional feelings of isolation. For student-athletes in other sports, however, we find no reliable differences between type of housing and feelings of isolation. As a whole, these results suggest that living in housing with mostly other student-athletes increases the likelihood that football and basketball players will experience feelings of isolation, even though the majority of student-athletes believes that living with other student-athletes is a good arrangement.

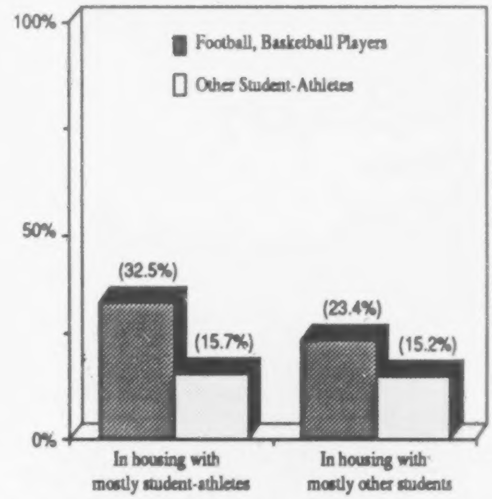

Figure 40. Student-Athletes Who Report "Frequent" or "Occasional" Feelings of Isolation

Interactions with Other Students, Friends, and Family

In addition to asking students about their living arrangements, we asked them specifically, "With whom do you spend most of your free time?" Students answered by marking one of five categories. The responses show a familiar pattern—students tend to socialize with others who have similar interests. This finding is most evident among football and basketball players. As Table 34 indicates, football and basketball players are more likely than other student-athletes to spend their free time with their teammates, and are less likely to spend it with students who do not participate in college athletics. However, the percentage of football and basketball players who say they spend most of their free time with teammates is not substantially different from the percentage of extracurricular students who say they spend most of their free time with those in the same activity.

Topics of Talk During Free Time

Table 35 gives an indication of what students talk about during their free time. The profile of conversation topics is somewhat different for extracurricular students when compared to student-athletes. In addition, it appears that the student-athlete profile is more distinct for football and basketball players. In particular, football and basketball players are more likely than other student-athletes or extracurricular students to talk about sports and about their coaches (activity directors for extracurricular students). Furthermore, when they are compared only to extracurricular students, we find that football and basketball players are more likely to talk about their family and their sport, and less likely to talk about classes, current events, and music. These findings strongly

Table 34.
Company During Free Time

	Percent of Category			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Teammates/Activity mates	56.6	43.5	51.2	.10*	.04	.08*
Other students (not involved in athletics or extracurricular activities)	19.0	29.4	13.7	.11*	.06*	.22*
Other student-athletes (other similar students)	11.0	11.1	17.7	.00	.10*	.12*
Other people	10.6	13.7	12.5	.04	.04	.03
Prefer to be alone	2.8	2.4	4.8	.01	.04	.02

* Statistically significant

Table 35.
Topics of Talk During Free Time

When you are with others during your free time, which of the following things do you usually talk about:	Percent responding "Yes"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Main activity	92.0	88.1	77.9	.06	.17*	.13*
Sports in general	90.6	82.2	58.5	.11*	.35*	.30*
Friends	86.5	87.3	80.8	.01	.06	.05
Coaches/Directors	81.2	69.0	44.7	.12*	.32*	.21*
Future plans	78.8	81.5	81.0	.02	.02	.02
Classes	74.7	78.6	87.0	.05	.13*	.05
Current events	73.9	72.6	81.7	.02	.07*	.12*
Family	72.8	68.1	60.8	.05	.10*	.08*
Grades	64.5	63.8	60.5	.00	.02	.09*
Music	61.1	64.1	69.1	.03	.07*	.04
Politics	24.5	32.5	56.3	.07*	.27*	.26*

• Statistically significant

suggest that football and basketball players are heavily caught up in their sports—on and off the field.

Confidants

We wanted to know about the people students turn to for help when faced with personal problems. As Table 36 indicates, more than 90% of all students say that they know people with whom they can talk easily about personal problems. This confidant is most likely to be a friend. Most student-athletes and extracurricular students, in fact, confide in friends, teammates or activity-mates, and family members. As compared to extracurricular students, however, football and basketball players are more likely to confide in teammates, academic advisors, and family members.

Organizational Membership

Because we sampled extracurricular students in many cases from lists of extracurricular organizations (e.g., fraternities, hobby clubs, student government), comparisons between student-athletes and these students in terms of organizational memberships will be misleading. However, we can compare the organizational memberships of football and basketball players to those of other student-athletes. As Table 37 shows, there are no reliable differences between the two groups, with the exception that football and basketball players are more likely than other student-athletes to belong to religious clubs or fellowships. In fact, they are about as likely as extracurricular students to belong to such clubs or fellowships, in spite of the fact that some of the extracurricular students in this study were selected because of their memberships in religious organizations.

Table 36.
Confidants

	Percent responding "Yes"			Effect coefficients (correlations)		
	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Do you know people with whom you can talk easily about your personal problems?	91.4	93.5	95.1	.02	.03	.05
Who are these people?						
Other friends	82.5	85.6	85.4	.02	.00	.05
Parents	81.9	78.8	71.9	.07	.17*	.05
Brothers/Sisters	73.4	70.7	60.1	.05	.17*	.14*
Teammates/ Activity mates	70.8	66.9	64.9	.06	.09*	.01
Other students (not involved in athletics or extracurricular activities)	59.7	66.8	56.7	.05	.05	.14*
Coaches/Directors	39.9	40.5	37.4	.00	.04	.01
Other student-athletes (other similar students)	34.4	35.5	51.1	.00	.13*	.17*
Academic advisors	25.3	19.5	16.6	.06	.08*	.05

* Statistically significant

Table 37.
Membership in Clubs and Organizations

	Percent responding "Yes"			Effect coefficients (correlations)		
On or off this campus, do you belong to a(n):	(1) Football Basketball	(2) Other Sports	(3) Extra-curricular	(1) vs. (2) r	(1) vs. (3) r	(2) vs. (3) r
Religious club or fellowship	22.2	14.5	29.9	.08*	.06	.14*
Social fraternity or sorority	15.0	15.4	26.7	.01	.14*	.11*
Interest or hobby club	7.9	12.1	27.5	.06	.24*	.12*
Service organization	7.5	9.0	26.5	.02	.23*	.21*
Political group	3.2	4.2	19.7	.02	.25*	.20*

* Statistically significant

8. Student-Athletes with Multiple Problems

To this point, we have discussed the similarities and differences among football and basketball players, student-athletes in other sports, and extracurricular students in the aggregate, generalizing the findings from our sample to all Division I institutions. In this chapter, we identify profiles of student-athletes who are experiencing multiple problems, based on a preliminary analysis of responses to selected survey items. In addition, we examine the institutional settings of student-athletes who best fit these profiles. To this end, we first describe some of the indicators that may place student-athletes at risk for experiencing clusters of serious problems. Second, we identify institutional indicators and attempt to relate them to the presence on campus of student-athletes with multiple problems.

Problem Profiles of Student-Athletes

We selected 16 measures from our survey that indicate problems students might encounter. These measures represent five general problem areas:

- psychological distress
- physical distress
- difficulty in avoiding alcohol and drugs
- mental or physical abuse
- unsatisfactory academic performance

For each of the 16 measures, we determined ranges of responses that, in our opinion, signified potential problems. For example, any response other than "never" to questions concerning physical or mental abuse was considered to be an indicator of problems. Similarly, only responses of "more dissatisfied than satisfied" or "not satisfied at all" were considered to be indicators of potential problems with respect to the satisfaction items (e.g., satisfaction with academic performance). Included among the 16 measures are 12 items from the student-athlete questionnaire, one measure obtained from college transcripts (cumulative GPA), and composite scores from the following three psychological inventories that were part of the survey:

- CES-D Scale—a 20-item measure of the major clinical symptoms of depression
- Spielberger Trait Anxiety Inventory—a 20-item measure of anxiety
- Rosenberg Self-Esteem Scale—a 10-item measure of the self-acceptance aspect of self-esteem

We selected the 50 items from these scales and rescaled the scores so that high scores corresponded to high amounts of each trait (e.g., high CES-D score = high depression; low Self-Esteem score = low self-esteem).

Table 38 lists the problem ranges for each of the 16 survey measures. (Item numbers refer to the student-athlete version of the questionnaire.)

Next we identified all survey respondents who reported one or more of the problems indicated by these measures. Of all 4,083 respondents, only 340 students reported no problems on any of the 16 measures; 693 students reported only one problem on any of the measures. We used factor analyses of data from all respondents who reported at least one problem (3,743 cases) to test the integrity of our classification scheme for student problems. The results strongly supported the classification of the 16 measures into the five problem areas listed above.

Using the data from all respondents with at least one problem, we empirically determined the minimum number of problems that would define an individual as being at highest risk. Our intent was to identify a small but distinct group of students experiencing multiple problems. To identify this group of students, we looked at:

- the distribution of problems and the point at which the number of actual versus predicted problems was greatest
- the 10% of students who reported the most problems
- the students who reported experiencing half or more of the 16 problems (i.e., eight or more problems)

These three groups closely coincided, suggesting that students reporting eight or more problems would define the group at highest risk. This group includes a total of 340 students—only 6% of all survey respondents. Of this group, 247 are student-athletes, and most are football and basketball players (n = 193). About 12% of the original sample of football and basketball players are part of this group, as compared to approximately 4% of the original sample of student-athletes in other sports and 7.5% of the original sample of extracurricular students.

Table 38.
Problem Indicators

Measure	Problem Range
Area 1: Psychological Distress	
CES-D Scale	Top 25% indicating high depression (Composite score of 17-79)
Spielberger Trait Anxiety Index	Top 25% indicating high anxiety (Composite score of 43-79)
Rosenberg Self-Esteem Scale	Bottom 25% indicating low self-esteem (Composite score of 10-11)
Satisfaction with Life	More Dissatisfied Than Satisfied or Not Satisfied at All—Item 100
Area 2: Physical Distress	
Eating Problems	Greatly Bothered or Bothered—Item 90
Exhaustion	Greatly Bothered or Bothered—Item 90
Insomnia	Greatly Bothered or Bothered—Item 90
General Health	Fair or Poor—Item 88
Area 3: Difficulty in Avoiding Alcohol and Drugs	
Avoidance of Alcohol	Harder or Much Harder (for student-athletes to avoid)—Item 99
Avoidance of Drugs	Harder or Much Harder (for student-athletes to avoid)—Item 99
Area 4: Mental or Physical Abuse	
Mental Abuse	Frequently, Occasionally, or Rarely (experienced)—Item 32
Physical Abuse	Frequently, Occasionally, or Rarely (experienced)—Item 32
Area 5: Unsatisfactory Academic Performance	
Incomplete Grades	Yes (received incomplete grades)—Item 24
Cumulative GPA	Less than 2.0 GPA—from college transcript
Academic Probation	Yes [been on academic probation] - Item 24
Satisfaction with Academic Performance	More Dissatisfied Than Satisfied or Not Satisfied At All—Item 30

Institutional Characteristics Related to Problem Profiles

In order to examine the institutional settings where student-athletes with problem profiles are found, we selected 11 measures from the survey instrument and from several databases on higher education that describe characteristics of the institutions in our sample. In particular, we selected measures that we believed met two criteria:

1. The measure is related to the institution's athletic program directly or indirectly through its effects on student-athletes.
2. The institutions could modify the measure through policy action, and thereby reduce potentially negative effects on student-athletes.

We determined whether each institution in our sample was described by each measure by calculating the institutional mean for each measure, then establishing the median of the distribution of all 42 institutional means. The median was the cut-off point for determining whether the institution was described by the measure. The institutional measures we selected and the rationales for their selection are presented in Table 39.

Preliminary analyses suggest an important relationship between the extent to which football and basketball players have multiple problems and are, by our definition, at highest risk, and one of the institutional characteristics of athletic programs that has been significant throughout this report: the successfully-competitive football and basketball programs. Specifically, we find that at institutions that have more successfully-competitive programs, 13.7% of the football and basketball players are in the highest risk group (i.e., have multiple problems), while at institutions with less successfully-competitive programs, 7.4% of the football and basketball players are in the highest risk group.

Related to this result, we find that more football and basketball players in the highest-risk group are at institutions where student-athletes generally experience more intense pressure during recruitment. That is, at institutions where student-athletes in general report higher recruitment pressure, 13.9% of the football and basketball players are in the highest risk group, while at institutions where student-athletes in general report lower recruitment pressure, 7.4% of the football and basketball players are in the highest risk group. This result suggests that clusters of student-athletes who have experienced intense recruitment pressure characterize institutions where at-risk football and basketball players are more likely to be found. More successfully-competitive football and basketball programs, which by definition win more games than they lose against formidable opponents, are likely to be characterized by having more sought-after student-athletes. This analysis seems to confirm the importance of successfully-competitive football and basketball programs as an attribute of institutions where more at-risk football and basketball players are to be found.

To a lesser, but still significant degree, we find that a second characteristic of institutionals is related to the incidence of at-risk football and basketball players on campuses—non-supportive or less helpful coaches (as measured by students responding "poorly" or "terribly" to an item asking them to rate how well the coach in their main sport assists them in non-athletic areas—e.g., knowing what life on campus is like for them, helping with their health problems, listening to their non-athletic problems, encouraging them academically and keeping track of how well they are doing in their courses).

Thus, we find that institutions who have more successfully-competitive programs and have coaches who are perceived as ineffective in non-athletic areas are the places where more football and basketball players at risk are to be found.

Table 39.
Institutional Indicators

Measures	Rationales for Selection
1. Student-athletes required to live together—Item 38	Homogeneous living arrangements may affect student-athletes' well-being, causing feelings of isolation.
2. Student-athletes living in housing with mostly other athletes—Item 41	Homogeneous living arrangements may affect student-athletes' well-being, causing feelings of isolation.
3. Student-athletes' attendance in college orientation programs—Item 25	Failure to attend orientation may detract from student-athletes' readiness for the college experience.
4. Student-athletes' attendance in special study skills courses—Item 25	Failure to attend study skills courses may detract from student-athletes' academic readiness and adversely affect performance.
5. Student-athletes' attendance in basic skills review courses—Item 25	Failure to review or remediate basic skills may detract from student-athletes' academic readiness and adversely affect performance.
6. Coaches support or help in nonathletic areas—Item 47	Failure of coaches to support student-athletes in nonathletic areas may cause disappointment, stress, and academic problems.
7. Successfully-competitive athletic program—Sagarin ratings, *USA Today*	Successfully-competitive programs may be related to higher stress and anxiety among student-athletes.
8. Number of classes missed per week during season—Item 69	Failure to attend classes may adversely affect student-athletes' academic performance.
9. Perception of unsatisfactory medical care—Item 98	Inadequate medical care (perceived or actual) may negatively affect student-athletes' mental and physical health.
10. Mean SAT and ACT score of incoming freshmen—indicated on high school transcripts	Low SAT and ACT scores indicate higher risk of academic failure and problems.
11. Admissions selectivity—Number of students accepted ÷ Number of students applied	Student-athletes at more selective institutions may feel more academically and socially isolated.

It is important to stress that *our findings are preliminary and merely suggest certain relationships*. They do not *prove* that more successfully-competitive programs or unsupportive coaches *cause* problems for student-athletes. Rather, these findings show only that football and basketball players with multiple problems are more likely to be found at institutions with these characteristics.

Implications

Although our findings do not prove the causal link between athletic program characteristics and student-athletes' problems, the results do suggest two important avenues of investigation to help prevent these problems—more accurate prediction of which student-athletes are most likely to be at risk for academic and psychosocial difficulties, and better explanation about the causes of these problems.

Better prediction will involve a closer examination of participation in college athletics, including institutional conditions (e.g., the competitive characteristics of sports programs, team practice requirements, living arrangements, and coaching styles) as well as student characteristics (e.g., academic preparedness and psychological factors), to find the profile of conditions that will best help administrators target student-athletes at risk before they develop more serious problems. These students can then receive closer supervision, counseling, and other services to help prevent them from experiencing severe difficulties.

More important, it will be necessary to understand how student characteristics and institutional factors may interact to reduce student-athletes' ability to cope with college life. For example, what exactly is it about successfully-competitive athletic programs that might exacerbate the struggles of student-athletes? Once these factors are identified, discussions can begin about which conditions are changeable and, for those that are not, how best to ameliorate their negative effects.

9. Summary and Conclusions

Report No. 1: *Summary Results from the 1987-88 National Study of Intercollegiate Athletes* provides data to inform discussions of the first four sets of questions raised by the Presidents Commission in its *Agenda for Reform*. In this chapter, we draw together findings from previous chapters to address these questions directly.

1. **How do the experiences of college or university life of student-athletes compare with those of other students who devote a great deal of time to a particular extracurricular activity?**

Similarities. In many ways, the college experience of student-athletes and extracurricular students is similar. Both student-athletes and extracurricular students perceive that earning a college degree is very important. Both groups of students take many of the same types of courses, although their major fields of study are somewhat different. Student-athletes and extracurricular students spend about the same numbers of hours per week preparing for their classes (about 12 hours), in their classes (about 14.5 hours), and in social activities (between 10 and 11 hours). Both groups also report themselves generally satisfied with the way they manage their time, and they seem equally satisfied with their performance in their courses and with their overall academic performance.

Student-athletes and extracurricular students also report about the same levels of general health, and they score similarly on psychological tests designed to measure self-esteem, depression, and anxiety. Both student-athletes and extracurricular students spend time with their teammates or fellow students in the same extracurricular activity, and report about the same levels of perceived race and gender discrimination. The vast majority of both groups report never having experienced physical abuse while at college, and most report never having experienced mental abuse. In all of these respects, student-athletes are more like extracurricular students than some might have imagined.

Differences. In contrast to extracurricular students, however, student-athletes spend more time in their sports, and they are more likely to have received a grant based on their participation in these activities. In spite of having more grants, student-athletes report having less money available each month for personal expenses, and they regard what they do have as less adequate.

Student-athletes report more learning resources available to them (e.g., tutors and academic advisors), but they also report greater difficulties in making academic work their top priority. They come to college less well prepared academically and have slightly lower grade-point averages in college than extracurricular students. In addition, compared to extracurricular students, student-athletes report that it is harder for them as athletes to take advantage of many opportunities for personal growth that are typically available during the college years. For example, student-athletes report it is less easy for them to take leadership responsibility, to learn new abilities and skills, to talk about personal problems with others, and to speak their minds.

Student-athletes are more likely to be injured as a result of participation in their sports than extracurricular students are in their activities, and student-athletes are more likely to report feeling intense pressure to ignore these injuries. Student-athletes do report more personal experiences of physical and mental abuse at their institutions than extracurricular students, and they also report feeling somewhat more isolated from other students.

Student-athletes more often than extracurricular students look to their families, their coaches, and their academic advisors on campus in shaping their education and career plans. The influence of their families is especially strong, and student-athletes are more likely than extracurricular students to want their coaches (versus activity directors) to encourage them to do well in their courses, to keep track of their grades, and to listen to their problems outside sports. As assessed by a psychological test designed to measure locus of control, student-athletes are more inclined than extracurricular students to attribute many of the events that occur around them to powerful others or to chance. In all of these respects, students participating in intercollegiate athletics differ from students participating extensively in other extracurricular activities.

2. **How do the experiences of student-athletes differ depending upon whether one is a participant in big-time sports or in sports that are not given a heavy emphasis?**

The experiences of student-athletes in "big-time" sports accentuate many of the differences between student-athletes generally and extracurricular students. Football and basketball players spend more time in their sports, receive more full-cost athletic grants, perceive what money they have for personal use as less adequate, have more educational resources available to them, and, these resources notwithstanding, perform less well academically and feel less capable of meeting their academic demands.

Football and basketball players in successfully-competitive programs are more likely than other football and basketball players to report ever having experienced physical or mental abuse, and they are also more likely to report feelings of isolation from other students. Although football and basketball players believe that living with their teammates is a positive arrangement, those who live in housing with mostly other student-athletes are more likely to report frequent or occasional feelings of isolation. In a preliminary assessment of students with serious difficulties, we find that 12% of the football and basketball players in our sample can be identified as having problems in multiple areas, as compared with 4% of the student-athletes in other sports and 7% of the extracurricular students.

3. **How do the experiences of student-athletes compare with those of other students in terms of courses taken, classes attended, time spent on or off campus, and tutoring received? How do they feel about and evaluate their experiences? Do they see themselves as beneficiaries of fine programs, or as exploited? How do they personally experience the balance between athletics and academics in their daily lives?**

Courses taken. Fifty-five percent of the courses taken by student-athletes are also taken by extracurricular students. There is a tendency for student-athletes, especially football and basketball players, to be in classes with other student-athletes. However, it is not surprizing that students with similar interests should be enrolled in many of the same courses. In addition, comparisons of courses taken by student-athletes and extracurricular students must be tempered because our extracurricular sample was selected in part because it represented a heterogeneous mix of student interests (e.g., dance, drama, and government).

Some difference in the types of courses taken by student-athletes and extracurricular students can be explained by the differences in their choice of majors. Student-athletes enroll considerably more frequently than extracurricular students in business and business management majors and somewhat less frequently in liberal arts, sciences, and engineering majors. Only about 6% of football and basketball players and 7% of other student-athletes enroll in physical education as their major.

Classes attended and time spent. When their sports are in season, student-athletes spend about the same amounts of time as extracurricular students in preparing for and attending classes. However, football and basketball players spend more time in their sport during the season than they do in preparing for and attending class combined. During the season, student-athletes miss about two classes per week on the average—one more than extracurricular students. During the off-season, the time demands on student-athletes and extracurricular students are reduced. However, student-athletes continue to spend more time in their sports than they do in attending class (18 versus 14 hours in sports and classes, respectively, for football and basketball players as compared to 11 versus 15 hours for extracurricular students). For freshman student-athletes, practicing with varsity teams but not participating in competition (i.e., being redshirted) makes no difference as far as time committed to sports. Freshman redshirts spend as much time in their sport during the season as do those freshman who practice and compete.

Tutoring received. Student-athletes report that it is easier for them as athletes to get help in their courses—help from teaching assistants, tutors, and academic counselors. Football and basketball players in more successfully-competitive programs report that these learning aids are even more available to them. Finally, more student-athletes take academic skill-building courses at college.

Student evaluations of their experiences. Both student-athletes and extracurricular students report they are generally satisfied with their educational experiences. About 90% of each group are satisfied with their current courses, about 95% are satisfied with their college major, and 65% are satisfied with their performance in courses. There are no reliable differences in satisfaction with educational experiences between student-athletes and extracurricular students. Student-athletes are, however, less satisfied with their performance in sports than extracurricular students are with their performance in their extracurricular activities. Compared to the way extracurricular students say their activity directors have helped them develop in their activities, student-athletes report they are less satisfied with the way their coaches have helped them develop in their sports

Exploitation. Feelings of exploitation are difficult to assess reliably in a single cross-sectional study. For this reason, we have limited our examination of this topic to what students perceive as harder or easier for them to do because they are athletes or extracurricular students. As previously noted, we do find areas where student-athletes report it is less easy for them because they are athletes to perform well or to avail themselves of opportunities associated with college life (e.g., getting the grades they are capable of getting, taking on leadership roles and responsibilities). The cross-sectional data from the 1987-88 National Study of Intercollegiate Athletes provide an important baseline from which to examine the career and life-course development of student-athletes, however, and it is in future follow-up studies that we intend to assess the topic of exploitation more directly.

The balance between athletics and academics. Student-athletes report that it is more difficult for them as athletes to perform well academically. For example, student-athletes, and football and basketball players especially, report that it is harder for them to make academic work their top priority and to get the grades they are capable of getting. These findings are related to more successfully-competitive football and basketball programs. Football and basketball players in these programs report that it is even more difficult for them as athletes to meet the demands of their academic schedules. In general, however, about 70% of student-athletes in football and basketball report that they manage their time better than other students (as compared to more than

80% of extracurricular students).

4. **How are student-athletes recruited? How do recruitment activities differ depending upon the intensity of the athletic program? What are the differences in test scores and grade-point averages between athletes and other students? How do recruited students personally experience the process of choice of college and university and the role of athletic recruitment in that process?**

Recruitment activities and intensity. Student-athletes are recruited more actively and more intensively by colleges and universities than are students who participate in extracurricular activities outside sports. We also find that student-athletes who perceived the most intense pressure during recruitment are more likely to be enrolled in institutions whose athletics programs are successfully-competitive—our best measure at this time of "intensity."

Differences in test scores and grade-point averages. Student-athletes in football and basketball score slightly lower on the American College Testing (ACT) Assessment Program and on the Scholastic Aptitude Test (SAT) than extracurricular students. Student-athletes in sports other than football and basketball score between the two groups. The pattern for grade-point averages in high school parallels that of the test scores. College football and basketball players report a B average in high school, which is about a quarter of a grade lower than extracurricular students report. Student-athletes in other intercollegiate sports report scores that are between those for football and basketball players.

College choice and recruitment. Recruited student-athletes see the recruitment process as a time of pressure, with football and basketball players feeling the most intense pressure and other student-athletes who do not have athletic grants feeling the least pressure. The majority of recruited student-athletes see the recruitment process as helping them to make the "right" college choice, and only a very few (less than 3%) report that the information they received during recruitment was misleading and caused them serious problems.

10. Technical Information about the Study

This chapter provides additional detail about the methodology we used during the 1987-88 National Study of Intercollegiate Athletes, including descriptions of the sample. Report No. 2: *Methodology of the 1987-88 National Study of Intercollegiate Athletes* expands on the descriptions below.

Overview of Study Methodology

The population of interest for this study was a subset of the undergraduate students enrolled full-time at institutions that were Division I members of the NCAA in 1987-88. (Division I institutions sponsor at least six all-male or mixed male and female varsity sports and at least six all-female varsity sports competed at the Division I level.) All students who participated in intercollegiate athletics at the Division I level in 1987-88, as well as students who participated in other extracurricular activities, were eligible for inclusion in the study sample. To facilitate studies of the experiences of black student-athletes, a special sample of black students not participating in either intercollegiate athletics or other extracurricular activities was also selected. The special sample was included to compare the experiences of black student-athletes with other black students on the campuses. These comparisons will be presented in a later report.

We sampled 42 Division I institutions to reflect the variation in location, size, and public or private status of all 291 Division I colleges and universities. We selected the 42 institutions as follows:

- two institutions at random from each of the nine conferences in Division I-A, plus three institutions from among the independents in Division I-A
- one institution at random from each of 11 conferences in Division I-AA
- one institution at random from each of 10 conferences in Division I-AAA

Using data obtained from the U.S. Department of Education, we compared the institutions we selected to the 291 institutions that compose all of Division I. Our analyses showed no reliable differences between the 42 institutions selected for our study and the remaining 249 institutions on 20 different measures, including total undergraduate enrollment, public versus private status, amount of tuition, percentage of minority students enrolled, percentage of freshmen in good standing, Scholastic Achievement Test (SAT) scores, total number of sports competed at the Division I level, and number of national championships won. Therefore, we feel confident about generalizing the results from our sample of 42 colleges and universities to all Division I institutions.

At each of the 42 institutions that compete in the sport at the Division I level, we selected student-athletes as follows:

- 30 football players at random from a list of all players on the squad, at a ratio of one freshmen for every two members of the other classes
- 10 men's basketball players at random from a list of all players on the squad
- 10 women's basketball players at random from a list of all players on the squad
- 10 men who had athletic grants in other sports, at random from lists of all grant recipients in intercollegiate sports other than football or basketball
- 10 women who had athletic grants in other sports, at random from lists of all grant recipients in intercollegiate sports other than basketball
- 10 participants without athletic grants in other sports, at random from lists of all participants in intercollegiate sports other than football and basketball

For comparisons with student-athletes on each of the 42 campuses, we selected 20 students who participated extensively in other time-consuming extracurricular activities such as band or orchestra, drama or other performing arts, student newspaper or radio, or campus work-study programs. We made the selections at random from lists of all students who participated extensively in these extracurricular activities. We picked students who participate in an extracurricular activity as our primary comparison group to ensure that any differences between student-athletes and comparison students would not be due solely to differences in time spent in activities that are not directly related to coursework. On each campus, we also selected a special sample of 10 black students who were not student-athletes or participants in time-consuming extracurricular activities. In general, however, we did not include any "mainstream" or "typical" students in our comparison sample.

For those institutions in the sample that did not have football or women's basketball or any of the other sports, or had them but did not compete at the Division I level, we adjusted the sizes of the student-athlete samples (see Report No. 2: *Methodology of the 1987-88 National Study of Intercollegiate Athletes*). We drew a total sample of 4,259 student-athletes and comparison students across the 42 campuses.

We also selected "alternates" in numbers equal to half the size of the primary groups listed above. For example, on each campus where we selected 30 football players as primary sample members, we selected 15 as alternate sample members. These alternates were selected at random following the same procedures used for the "primaries." We reserved the alternates for cases in which primary respondents at an institution either could not be located or refused to participate in the study.

Description of the sample

We collected usable questionnaires from 4,083 student-athletes and comparison students. Of these, 3,210 (75% of 4,259) were from primary respondents and 873 were from alternate respondents. Table 1 in Chapter 1 of this report presents the response rates by category.

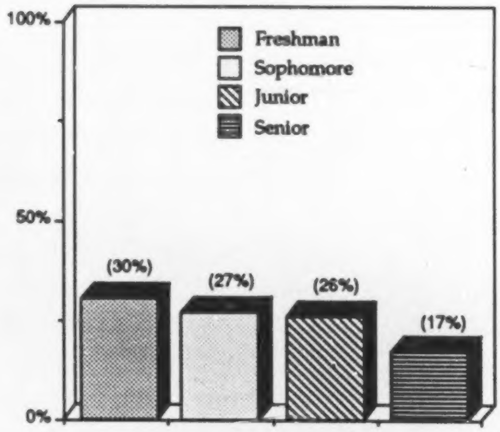

Figure 41. Class Standing for Student-Athletes in Sample

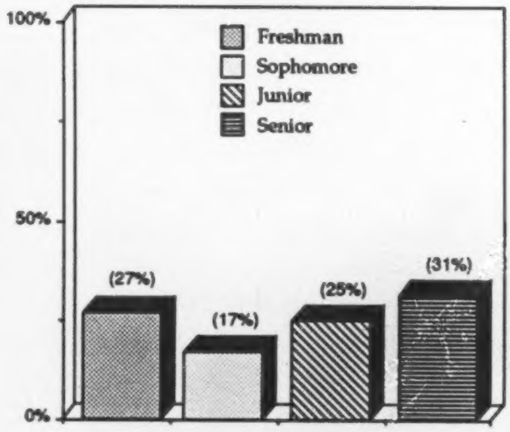

Figure 42. Class Standing for Extracurricular Students in Sample

Figure 41 shows class standing for the student-athletes in the sample, while Figure 42 shows class standing for extracurricular students. The percentages in the figures reflect our sampling strategies, and, in the case of extracurricular students, the nature of the extracurricular activities themselves. When possible, on each campus we selected football players at a rate of one freshman for every two sophomores, juniors, and seniors. We selected all other student-athletes without regard to class. In general, the nature of extracurricular activities—as time-demanding activities outside the classroom that students may elect to participate in at any time—resulted in the overrepresentation of juniors and seniors on the lists of students in extracurricular activities that we received from institutions. When possible, we selected extracurricular students at a rate of two freshmen for every three students in the other undergraduate classes; hence the larger number of freshmen than sophomores selected.

Figure 43 shows the race (black or nonblack) and gender groupings for the football and basketball players in our sample. Figure 44 presents similar information for the student-athletes in other sports, while Figure 45 shows the groupings for extracurricular students. In all sports, we selected student-athletes without regard to race, but did select separately for men's and women's sports. When possible on a campus, we selected extracurricular students in equal numbers for race and gender.

Table 40 shows the distribution by sport of the student-athletes in the sample who compete in sports other than football and basketball. Table 41 shows the distribution of activities for the extracurricular students in the sample. The distribution reflects our sampling strategy. On each campus, we identified extracurricular activities that, as far as possible, met the following criteria: they were time-demanding, competitive, pressure-filled, related to career possibilities, and likely to be perceived as personally significant by the participants. For each activity identified, we obtained a list of all students who participated 15 or more hours a week. From the combined lists for a campus, we selected by class, race, and gender as previously described.

Table 42 presents the self-reported team positions for all the student-athletes in the sample.

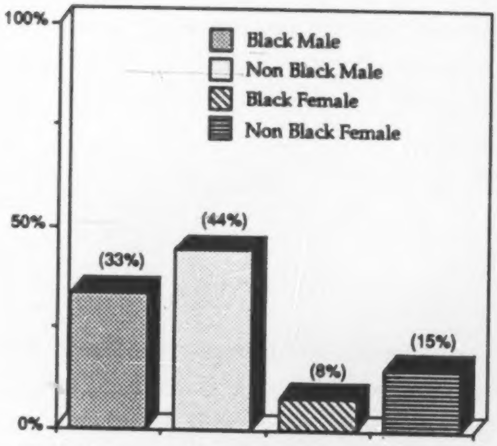

Figure 43. Race and Gender for Football and Basketball Players in Sample

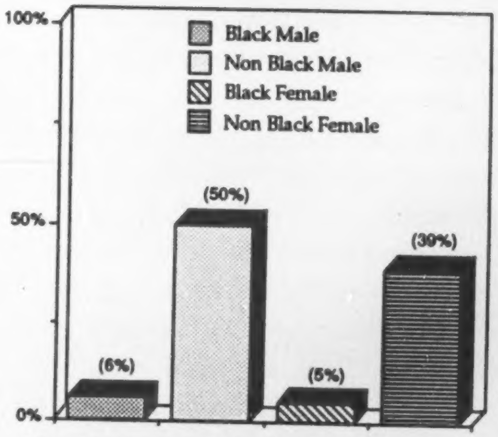

Figure 44. Race and Gender for Student-Athletes in Other Sports in Sample

Weighting and Analysis Procedures

The following notes briefly describe the procedures used in weighting the data from the sample and analyzing them. See Report No. 2: *Methodology of the 1987-88 National Study of Intercollegiate Athletes* for more complete explanations of our methodology.

The summary statistics described in this report, including tests of statistical significance and measures of the strength of association, are based on the entire population of Division I student-athletes—on weighted estimates resulting from our sampling procedure. We computed the summary statistics and tests so as to eliminate any spurious confounding due to different distributions of respondents by race, gender, and institution on key variables. Similarities or differences between groups described in this report, therefore, are not due to the fact that one of the groups in a comparison may have had relatively more men, more women, more blacks, or more nonblacks in the individual institutions comprising the group.

Weighting for institutions

We assigned the 291 institutions in Division I of the NCAA to 33 strata (Division I-A, I-AA, and I-AAA conferences and groups of Division I-A independents) and selected 42 institutions at random from within these strata. In order to represent all Division I institutions, we computed institutional weights for selected colleges or universities based on the population each represented within a particular stratum. For example, if we selected two institutions from a conference stratum with 10 institutions, each of the selected institutions represented five others in the stratum and was assigned a weight of five.

Weighting for students

We assigned a weight to each responding student based on the number of students in the population (i.e., at the particular college or university and in the conference generally) he or she was representing. This weight was the number of other students at the institution the student represented multiplied by the institution weight. The number of other students at the institution to be represented by a sampled student was given by squad lists for student-athletes and from group lists for extracurricular students. The weights assigned to students were the inverses of the sample selection ratios for each of the different lists.

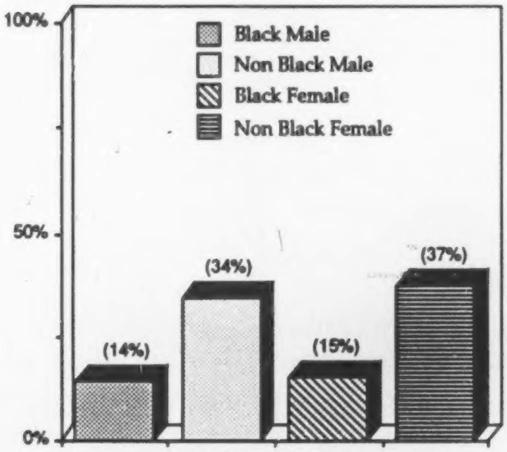

Figure 45. Race and Gender for Extracurricular Students in Sample

The sizes of the squad lists in sports other than football and basketball and the group lists for extracurricular activities varied dramatically across institutions. Without appropriate adjustments, comparisons of aggregate descriptions of football and basketball players with aggregate descriptions of other students would have been confounded

Table 40.
Student-Athletes in Other Sports in Sample, by Sport

Percent									
Track & Field	Swimming	Baseball	Tennis	Volleyball	Soccer	Golf	Wrestling	Softball	Other *
21%	15%	14%	9%	9%	8%	5%	4%	3%	12%

* (Nine sports with less than 3% sample representation)

Table 41.
Extracurricular Students in Sample, by Activity

Percent							
Performing Arts	Work-Study	Student Services (e.g. Gov't)	Fraternity Sorority	Misc. Sports (e.g. Club Sports)	Clubs	Media (e.g. Newspaper)	Other
37%	12%	14%	10%	8%	8%	8%	3%

Table 42.
All Student-Athletes in Sample, Team Positions by Category

Percent					
1st Team	2nd Team	3rd Team	Red Shirt	Not Eligible	Other
66%	15%	7%	8%	1%	3%

by these variations. To eliminate the confounding, we adjusted the weights for groups being compared so that at each institution in the comparison, the sum of the weights was the same. For example, in comparisons of student-athletes in other sports or extracurricular students to football and basketball players, the sum of the weights for other sports and extracurricular activities was adjusted to be the same as the sum of the weights for football and basketball players. This allowed us to compare the outcomes for football and basketball players with those of "similarly situated" students.

Adjusting for nonresponse

Although we achieved high response rates overall, we are currently conducting a survey of nonrespondents to identify whether any necessary adjustments for nonresponse are necessary. For this report, we conducted tests to determine whether there are reliable differences between early and late respondents. We collected data on campuses over a relatively short period, but in some cases individual students completed questionnaires substantially later than others on the same campus. We hypothesized that the late respondents might be similar to nonrespondents and tested to see if they differed from early respondents on six key variables. Because the results of the tests were not above the chance level, we did not differentially weight the late respondents to represent nonrespondents for this report. As soon as complete data from our survey of nonrespondents are available, we will be able to assess the precise effects of nonresponse on the results reported here.

Initial results from our survey of nonrespondents indicate very small differences between respondents and nonrespondents. For example, we have compared the grade-point averages of nearly all nonrespondents to respondents at the same institutions. The average grade-point average for nonrespondents was 2.54, compared to 2.66 for a corresponding group of respondents. Looking only at freshmen, the average was 2.66 for for both nonrespondents and respondents. These findings suggest that the effects of nonresponse on the summary results presented in this report are likely to be minimal.

Controlling for gender, institution, and race variation

Many of the comparisons in this report involve three groups: (1) football and basketball players, (2) other student-athletes, and (3) other students participating in extracurricular activities. The tests of the statistical significance of differences were performed between pairs of these groups: football and basketball players versus other student-athletes; football and basketball players versus extracurricular students; and other student-athletes versus extracurricular students. To ensure that the tests were not confounded by race, gender, or institution effects, data were only included for institution and race and gender combinations that were present for all groups involved in the tests.

There were two ways in which the tests could be performed for these three-group comparisons: (1) delete all institution, race, and gender combinations that were missing in any one of the three groups, creating a single dataset for all three pairwise comparisons; or (2) create a separate dataset for each pairwise comparison, deleting all institution, race, and gender combinations that were missing in any one of the two groups involved in the particular comparison. Arguments can be made for each alternative. With the first method, the same groups are involved in all computations, but in some pairwise comparisons an institution, race, and gender combination of students is deleted even though that combination is present for both halves of the pair (but missing for the third group). With the second method, all institution, race, and gender combinations of students that are present for both halves of the pairwise combination are included, but the datasets on which the different comparisons are made are not the same. Generally, the differences in the the results of the two methods are small.

In this report, analyses were carried out using both methods; the figures and tables of three-way and four-way comparisons presented in the report are based on one or the other of the methods. In order to interpret these figures and tables correctly, the reader should be aware that the means and frequencies presented for comparisons using method 2 (i.e., three separate datasets for the three pairwise combinations) were computed as follows: means and frequencies for football and basketball players and for other student-athletes are based on the dataset used for the comparison between these two groups, while the means and frequencies for the extracurricular students are based on the dataset used for the comparison of football and basketball players to extracurricular students.

The following figures and tables in this report used method 2: Figures 17-19, 21, 23, 25-26, 28, 29, 31-38, and 40; Tables 5-11, 15, 16, 18, 20, 21, 23-25, 27-31, 33, and 35-37.

For every comparison in this report, there is a focal group (usually football and basketball players) and one or more comparison groups (usually other student-athletes and extracurricular students). In every case, we adjusted the weights for the comparison group so it represented a grouping of students with the same within-institution distribution of race and gender as the focal group.

Using weighted tests of significance

We developed procedures that provide accurate weighted *t*-tests, based on a computed effective sample size for each group being compared. Effective sample sizes for weighted *t*-tests are generally smaller than the sample sizes for *t*-tests that are not weighted. By using weighted *t*-tests that are based on effective sample sizes and provide *t* statistics that can be evaluated in the standard manner, we can be sure that reported differences are differences in the population, not merely differences in the sample.

The weighted *t*-tests used in this report were carried out conservatively, setting a threshold of 2.5 for "significance." This value corresponds to a *t*-statistic of 1.96 in cases in which the design effect is 1.275, a value we find typical of some of the comparisons. One result of setting a 2.5 threshold value is that a computed *t*-statistic of 2.4, for example, must be reported as indicating "no reliable difference." Because this might result in an over-emphasis on nonsignificant findings, we make a differentiation in referring to the findings: results in which the *t*-statistic is less than 1.6 in magnitude are described as indicating "similarity" or "no difference." The term "no reliable difference" is reserved for comparisons in which the *t*-statistic is marginally significant (between 1.6 and 2.5 in magnitude, before adjustment for design effect)—i.e., we might expect that in a larger study many of these results would achieve the .05 level of statistical significance. In any case, the reader should examine the reported correlation coefficients for indication of the sizes of differences, irrespective of their statistical significance.

As noted above, the *t*-tests are performed in such a way that all spurious confounding due to race, gender, and institution variation is removed from the mean differences (i.e., in each case, the focal group of interest is compared with a hypothetical comparison group with the same proportion from each race, gender, and institution). As originally carried out in this study, the *t*-tests were conservative, in that race and gender variation were included in the variance estimates computed for the denominators of the *t*-tests. The correlation coefficients are reported for those computations. However, in order to avoid being too conservative in identifying differences, we also computed the *t*-statistics removing race and gender variation in those variance estimates. The results were essentially the same and we have taken the small differences in these results to account in identifying results as statistically significant or not.

Controlling for design effect

The participants in this study were not a simple random sample of students at Division I institutions. Instead, they were approximately 100 randomly selected students of particular types (e.g., football and basketball players, other student-athletes, and extracurricular students) at each of 42 randomly selected institutions. Clustering the study at 42 of the 291 Division I institutions dramatically reduced the costs of data collection and only slightly reduced the power of the study to identify important factors in the lives and experiences of student-athletes. The loss of power due to clustering, however, can vary from one measure to the next and depends upon the relative sizes of the within-institution and between-institution variations on a particular measure.

The loss of statistical power leads to an increase in the real variance of computed statistical estimates, so that simple textbook formulas for the variance of the statistics underestimate the real variance. We computed the ratio of the real variance to the formula variance from an analysis of variance and adjusted test statistics by the square root of that ratio.

Developing measures for use in data analysis

SES, psychological scales, and opportunities composites. To facilitate analyses, we created a composite socioeconomic (SES) measure, six composite scores based on the four psychological scales included in the questionnaires, and four composite measures based on a multiple-response item assessing personal growth and development opportunities. To develop an SES measure, we standardized and averaged the values on each of four variables (father's occupation or mother's occupation if father's occupation was not listed, father's education, mother's education, and annual family income). We used the Duncan Socioeconomic Index (SEI) to classify father's or mother's occupation. SEI values were assigned based on Census codes for occupations.

We modified the standard scoring and interpretation procedures for the self-esteem, depression, anxiety, and locus of control self-description inventories included in the questionnaires. Our scoring procedures adjusted for missing responses up to a cut-off based on the number of items in each of the four scales. If a student omitted items in excess of the cut-off, no composite was calculated and the student's response was treated as missing. In most cases, our cut-off values for missing items were the same as recommended by the developers of the scales.

One item on the questionnaires focused on personal growth and development opportunities and included 20 separate sub-items. We used factor analysis as a preliminary step in clustering the responses for this item. We standardized the data first by race and gender and then used a principal components analysis with a varimax rotation, basing the analysis on data for student-athletes (the largest group in the sample). In the analyses described in this report, we refer to the responses to the sub-items as well as to the four composite measures based on the factor analysis.

Successfully-competitive programs: A measure of intensity. We created a variable to indicate a sports program's success in competition, determined on the basis of the quality of opponents and the program's win-loss record over time for football and men's basketball. To determine the variable "successfully-competitive" programs, we used unstandardized *USA Today* data (Jeff Sagarin, *USA Today*, April 3, 1985, January 3, 1986, January 4, 1988, and April 19, 1988) that show how Division I football and men's basketball teams performed in relation to one another. In deriving the measure, we used the data for the year of our study (1987-88) and for the earliest year for which comparable data were available from the same source (1985-86 for football and 1984-85 for basketball). We used the average rating from the pairs of years to rank the institutions in our sample. The median value of this ranking served as the cut-off for designating institutions as having more or less successfully-competitive football and basketball programs. In this report, we always refer to successfully-competitive programs in the context of describing and contrasting football and basketball players with student-athletes generally.

Appendix

Figures with Additional Statistics

The tables in the body of this report present correlation coefficients to show the strengths of association between variables. The tables also indicate those differences among groups that are statistically significant according to weighted *t*-tests. Many of the figures in the body of this report are derived from the tables. Some of the figures do not have supporting tables, however. Duplicates of those figures with the same figure numbers are presented in this Appendix. Under each duplicate figure, we show the correlation coefficients and indicate the differences among groups that are statistically significant.

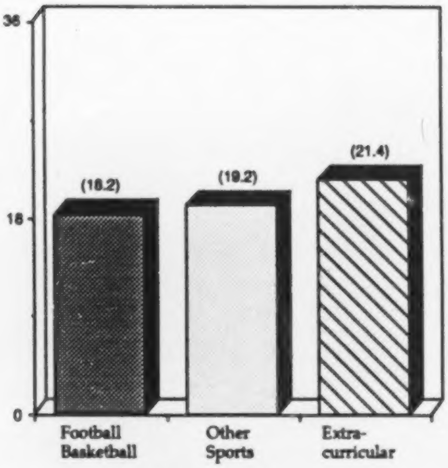

Figure 1. Mean ACT Composite Scores

Comparison			r
Football Basketball	vs.	Other Sports	.09
Football Basketball	vs.	Extra-curricular	.23*
Other Sports	vs.	Extra-curricular	.18*

* Statistically significant

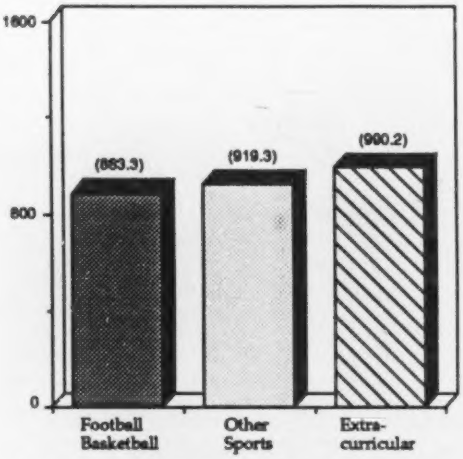

Figure 2. Mean SAT Composite Scores

Comparison			r
Football Basketball	vs.	Other Sports	.10*
Football Basketball	vs.	Extra-curricular	.24*
Other Sports	vs.	Extra-curricular	.17*

* Statistically significant

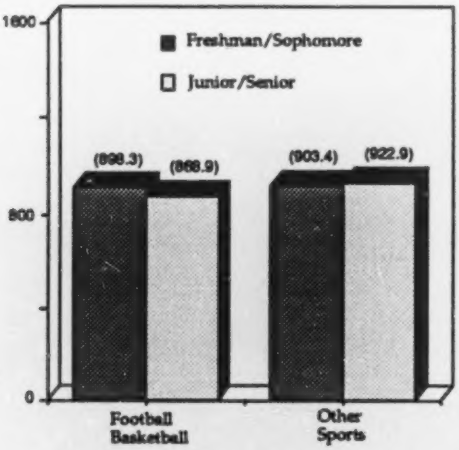

Figure 3. SAT Comparisons for Students Entering Before and After Passage of NCAA Bylaw 5-1-(j)

Comparison			r
Football and Basketball Players			
Freshman Sophomore	vs.	Junior Senior	.08
Other Sports			
Freshman Sophomore	vs.	Junior Senior	.00

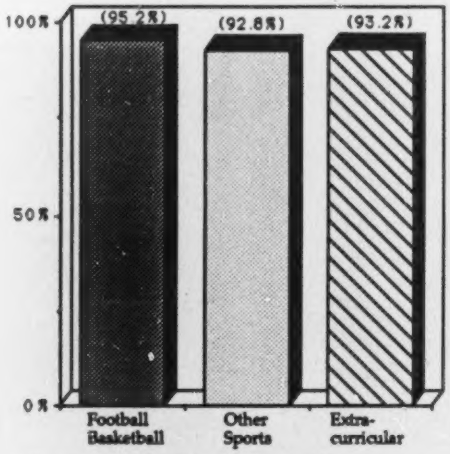

Figure 4. Students Reporting Degree of Importance or Greatest Importance: At Enrollment

Comparison			r
Football Basketball	vs.	Other Sports	.05
Football Basketball	vs.	Extra-curricular	.03
Other Sports	vs.	Extra-curricular	.02

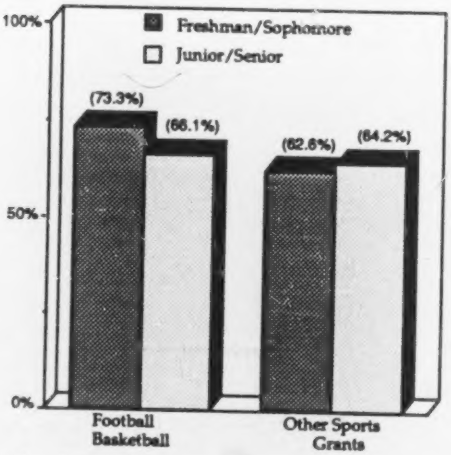

Figure 5. Students Reporting Degree of Greatest Importance: At Enrollment

Comparison			r
Football and Basketball Players			
Freshman Sophomore	vs.	Junior Senior	.10*
Other Sports Grants			
Freshman Sophomore	vs.	Junior Senior	.03

* Statistically significant

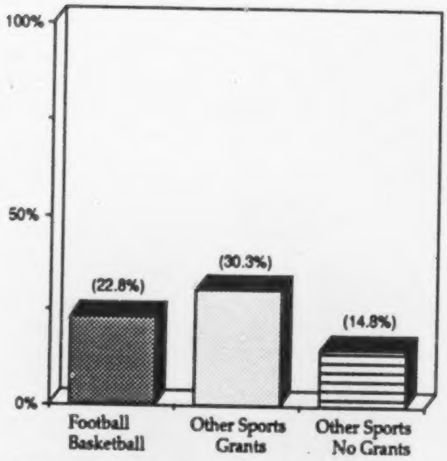

Figure 6. Student-Athletes Expecting to Become Professional Athletes: At Enrollment

Comparison			r
Football Basketball	vs.	Other Sports Grants	.08*
Football Basketball	vs.	Other Sports No Grants	.07*

* Statistically significant

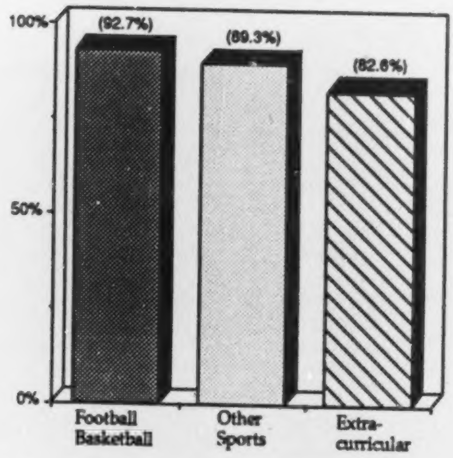

Figure 7. Students Reporting Family as Important Influence on Education or Career Plans

Comparison			r
Football Basketball	vs.	Other Sports	.07*
Football Basketball	vs.	Extra-curricular	.19*
Other Sports	vs.	Extra-curricular	.14*

* Statistically significant

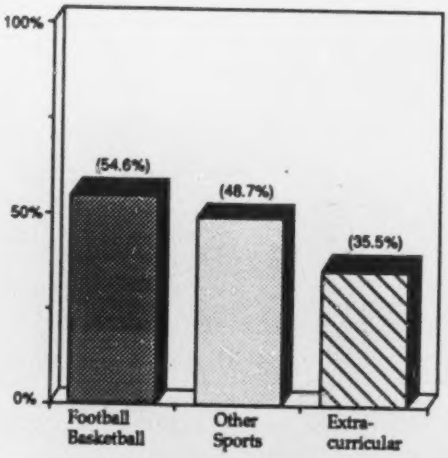

Figure 8. Students Reporting College Coach/Director as Important Influence on Education or Career Plans

Comparison			r
Football Basketball	vs.	Other Sports	.07
Football Basketball	vs.	Extra-curricular	.20*
Other Sports	vs.	Extra-curricular	.07

* Statistically significant

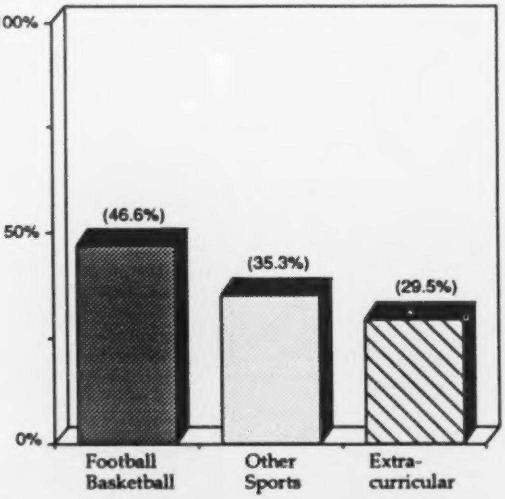

Figure 9. **Students Reporting Academic Advisors as Important Influence on Education or Career Plans**

Comparison			r
Football Basketball	vs.	Other Sports	.08*
Football Basketball	vs.	Extra-curricular	.13*
Other Sports	vs.	Extra-curricular	.05

* Statistically significant

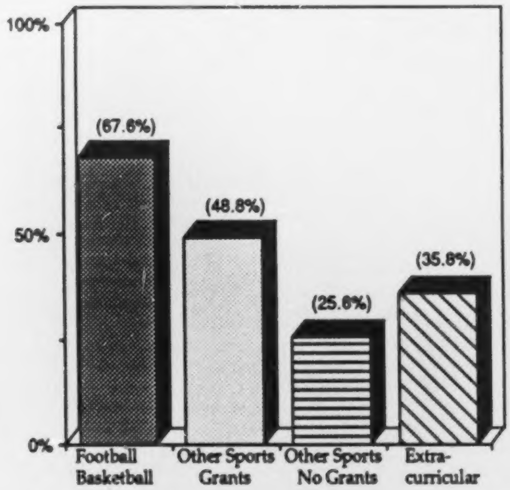

Figure 12. **Students Reporting Recruitment Pressure**

Comparison			r
Football Basketball	vs.	Other Sports Grants	.18*
Football Basketball	vs.	Other Sports No Grants	.25*
Football Basketball	vs.	Extra-curricular	.21*
Other Sports Grants	vs.	Other Sports No Grants	.23*
Other Sports Grants	vs.	Extra-curricular	.21*
Other Sports No Grants	vs.	Extra-curricular	.10

* Statistically significant

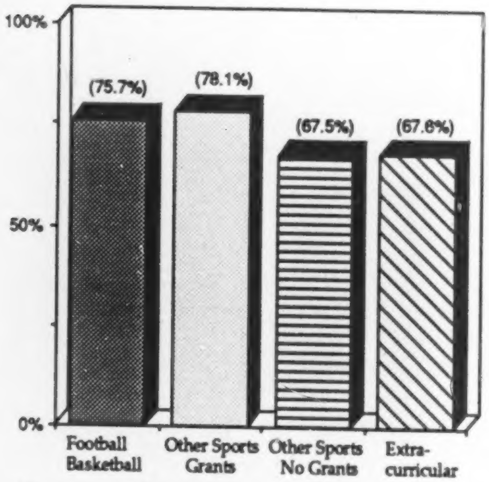

Figure 13. Students Reporting Recruitment Helped in College Selection

Comparison			r
Football Basketball	vs.	Other Sports Grants	.06
Football Basketball	vs.	Other Sports No Grants	.08
Football Basketball	vs.	Extra-curricular	.04
Other Sports Grants	vs.	Other Sports No Grants	.13*
Other Sports Grants	vs.	Extra-curricular	.06
Other Sports No Grants	vs.	Extra-curricular	.15

* Statistically significant

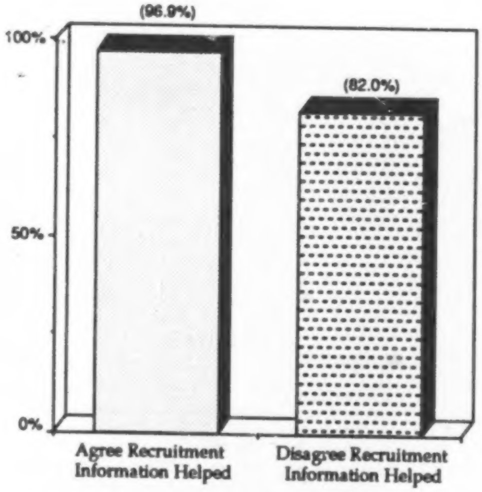

Figure 14. Student-Athletes Reporting Satisfaction with Their Lives

Comparison			r
Agree	vs.	Disagree	.19*

* Statistically significant

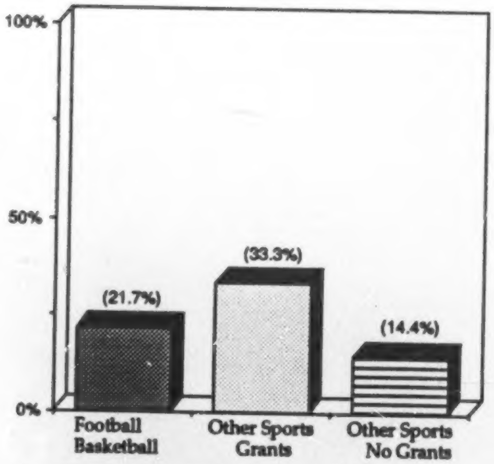

Figure 15. Student-Athletes Expecting to Become Profesional Athletes: At Time of Survey

Comparison			r
Football Basketball	vs.	Other Sports Grants	.11*
Football Basketball	vs.	Other Sports No Grants	.06

* Statistically significant

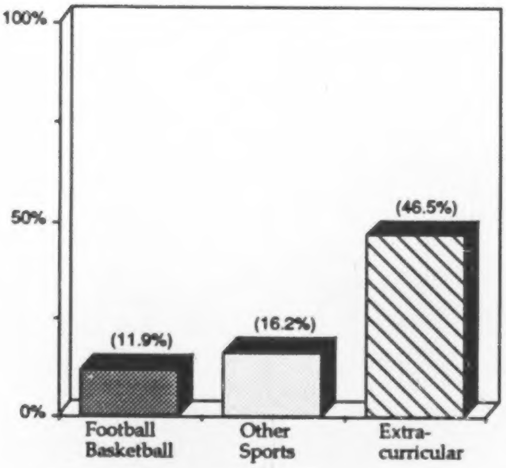

Figure 16. Students Reporting Themselves Totally Satisfied with Their Athletic/Activity Performance

Comparison			r
Football Basketball	vs.	Other Sports	.03
Football Basketball	vs.	Extra-curricular	.31*
Other Sports	vs.	Extra-curricular	.34*

* Statistically significant

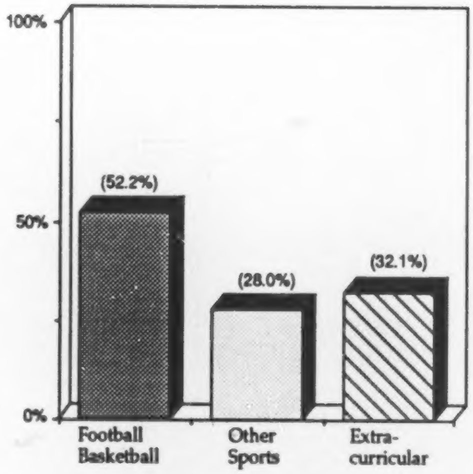

Figure 17. Students Reporting It Is Easier to Get a Summer Job

Comparison			r
Football Basketball	vs.	Other Sports	.16*
Football Basketball	vs.	Extra-curricular	.06
Other Sports	vs.	Extra-curricular	.13*

* Statistically significant

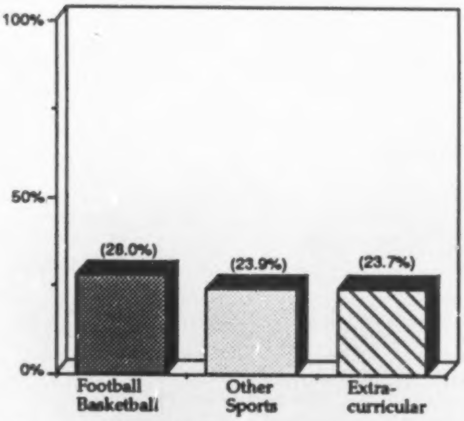

Figure 19. Students Reporting Coaches/Directors Doing an Excellent Job Helping in Areas Outside Their Main Activity

Comparison			r
Football Basketball	vs.	Other Sports	.04
Football Basketball	vs.	Extra-curricular	.03
Other Sports	vs.	Extra-curricular	.00

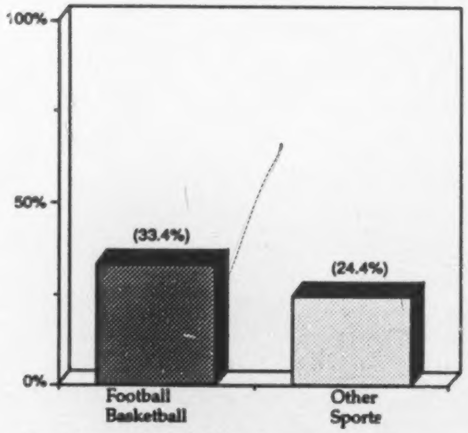

Figure 20. Student-Athletes Reporting They Are Usually in Courses with Many Student-Athletes

Comparison			r
Football Basketball	vs.	Other Sports	.08*

* Statistically significant

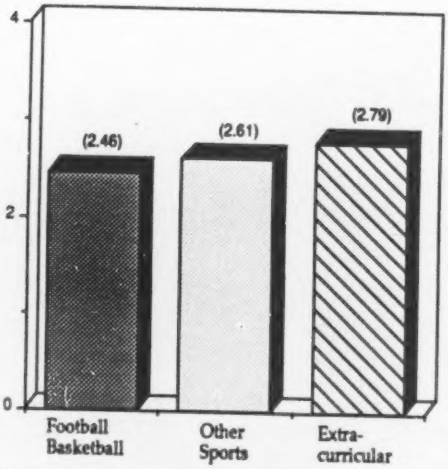

Figure 21. Cumulative Grade-Point Average at Subsample of 12 Institutions

Comparison			*r*
Football Basketball	vs.	Other Sports	.11
Football Basketball	vs.	Extra-curricular	.24*
Other Sports	vs.	Extra-curricular	.23*

* Statistically significant

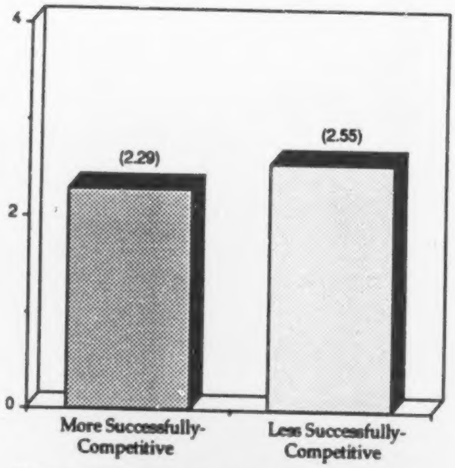

Figure 22. Cumulative Grade-Point Average of Football and Basketball Players in More and Less Successfully-Competitive Programs

Comparison			*r*
More Successfully-Competitive	vs.	Less Successfully-Competitive	.25*

* Statistically significant

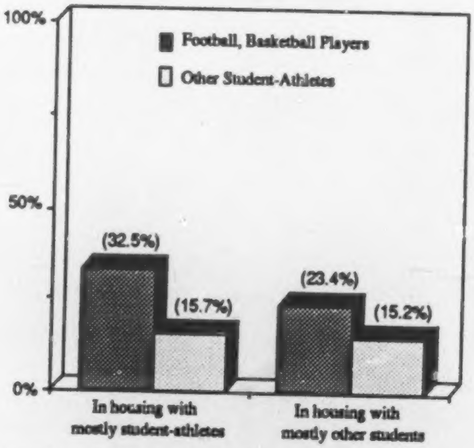

Figure 40. Student-Athletes Who Report "Frequent" or "Occasional" Feelings of Isolation

Comparison			*r*
Football and Basketball Players			
In housing with mostly student-athletes	vs.	In housing with mostly other students	.16*
Other Sports			
In housing with mostly student-athletes	vs.	In housing with mostly other students	.06

* Statistically significant

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Studies of Intercollegiate Athletics

Report No. 2: Methodology of the 1987-88 National Study of Intercollegiate Athletes

November 1988

American Institutes for Research
Washington, DC • Palo Alto, CA • Bedford, MA • Watertown, MA

Center for the Study of Athletics • Palo Alto, CA

Studies of Intercollegiate Athletics

Report No. 2: Methodology of the 1987–1988 National Study of Intercollegiate Athletes

November 1988

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American Institutes for Research
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1. Introduction

What is the proper role of intercollegiate athletics in American higher education? How should participation in intercollegiate athletics affect students? These questions are central to a national forum sponsored by the Presidents Commission of the National Collegiate Athletic Association (NCAA). All members of the Presidents Commission agree that intercollegiate athletics plays an important part in higher education, but they disagree sharply on the emphasis that athletics should be given. To ensure that debate during the forum is based on sound information, the Presidents Commission sponsored a comprehensive study of the effects of participation in intercollegiate athletics on student-athletes.

The American Institutes for Research (AIR), an independent, not-for-profit corporation, conducted the National Study of Intercollegiate Athletes for the Presidents Commission of the NCAA. AIR has been engaged in research, development, and evaluation in the behavioral and social sciences for more than 40 years. The study was directed from AIR's office in Palo Alto, California, and included staff in AIR offices in Massachusetts and Washington, DC, and in additional sites in midwestern and southeastern states.

The National Study of Intercollegiate Athletes was designed as the baseline for a series of studies. AIR began the study in November 1987 and surveyed more than 4,000 student-athletes and other students from March through July 1988. For the sample, AIR selected 42 colleges and universities from Division I institutions. Within each institution, groups of student-athletes and other students were selected to provide an appropriate number and mix of institutions, sports, genders, and races. Students in the samples completed questionnaires and were asked to grant permission for release of copies of their high school and college transcripts and ACT and SAT scores. The results of the study are being made available for the meeting of the national forum at the NCAA annual convention in January 1989 and are described in Report No. 1: *Summary Results from the 1987-88 National Study of Intercollegiate Athletes* (American Institutes for Research, 1988).

Organization of This Report

Report No. 2: *Methodology of the 1987-1988 National Study of Intercollegiate Athletes,* a companion document to the summary report of major findings, is divided into five chapters. This first chapter briefly describes the National Collegiate Athletic Association, the rationale for the study, and four activities undertaken in preparation for the study: forming a Scientific Advisory Committee, convening a constituent workshop, conducting a critical incident study, and pretesting instruments and procedures.

Chapter 2 presents the sample design: the institutions and student groups included in the study and the procedures followed in selecting them. Chapter 3 focuses on instruments used to survey each of the student groups. Chapter 4 describes the collection of data, including the preparations made at each institution and the standard procedures followed. Chapter 5 details the data analysis files—the coding and keytaping procedures, measures created for use in data analysis, and the weighting used.

The National Collegiate Athletic Association

The National Collegiate Athletic Association (NCAA) is an organization of U.S. colleges and universities plus representatives of allied conferences, affiliated organizations, and corresponding members, which establishes the rules and procedures for intercollegiate athletics of its member institutions. In 1987–88, 795 colleges and universities and 209 representatives of other groups were NCAA members. Representatives of the member institutions include Chief Executive Officers (CEOs), athletic directors, primary woman athletics administrators, faculty athletic representatives, and coaches. The colleges and universities and other members in the NCAA are grouped in three divisions:

- Division I institutions sponsor at least six all-male or mixed-team varsity sports and at least six all-female varsity sports. The institution's teams must play other Division I teams a specified number of times and meet requirements for stadium size and attendance. Division I institutions can offer a specified number of grants-in-aid based on athletic skill.

- Division II institutions sponsor at least four varsity sports each for men and women and can offer fewer grants-in-aid than Division I institutions.

- Division III institutions also sponsor at least four varsity sports each for men and women but cannot offer any grants-in-aid on the basis of athletic ability.

The biggest sports programs in U.S. colleges and universities are at the Division I level; student-athletes and other students in Division I institutions are the focus of AIR's National Study of Intercollegiate Athletes.

Four administrative groups comprise the NCAA administrative structure: (1) the NCAA Council, which directs the general policy of the organization between conventions, (2) the NCAA Executive Committee, which handles the financial aspects of the organization, (3) the NCAA Administrative Committee, which conducts business between meetings of the Council and Executive Committee, and (4) the NCAA Presidents Commission, which nominates candidates for offices, places topics on the agenda of the Council and convention, proposes legislation, and sponsors studies related to intercollegiate athletics.

The NCAA Presidents Commission

The Presidents Commission was established in 1984 and has 44 members chosen by the CEOs of NCAA member institutions: 22 from Division I, 11 from Division II, and 11 from Division III. It has focused on three basic questions:

- How can we ensure that intercollegiate athletic programs are conducted with integrity? In 1984, in response to this question, the Commission pressed for the implementation of legislation specifying minimum academic qualifications that student-athletes must meet and maintain to participate in intercollegiate athletics. The Commission also called a special convention where legislation was passed that increased penalties for violations and instituted measures for the prompt and fair enforcement of rules.

- How can we contain the costs of athletic programs and maintain a proper balance between intercollegiate athletics and other institutional programs? In 1986, the Commission focused on this question, which resulted in resolutions to guide reform in five areas deemed especially important: recruitment of student-athletes, compensation of coaches, length of playing and practice seasons, size of coaching staffs, and financial aid.

- What is the proper role of intercollegiate athletics in American higher education? In June 1987, the Presidents Commission issued *Agenda for Reform*, a policy paper that established an 18-month national forum to address this overall question and eight broad subsets of questions. The Presidents Commission asked AIR to conduct a national study of intercollegiate athletes to inform discussions of the first four sets of questions. A three-person subcommittee from the Presidents Commission worked with AIR to define the scope of the project. The study results will help the Presidents Commission and the NCAA members determine whether changes in legislation are needed, and if so, what those changes should be. The study results will be reviewed in January 1989 at the NCAA national convention.

Preparation for the Study

To help prepare for our National Study of Intercollegiate Athletes, AIR carried out four activities prior to beginning data collection:

1. formed a Scientific Advisory Committee
2. convened a constituent workshop
3. conducted a critical incident study
4. carried out a pretest of all instruments and data collection procedures

Each of those activities is briefly described below.

Scientific Advisory Committee

Because the National Study of Intercollegiate Athletes is the baseline for a series of studies, we wanted to include as much as possible in it; however, we recognized the limitations of time and resources. To assist us with design, procedural, and analysis issues, we enlisted the assistance of eight eminent researchers who served as a Scientific Advisory Committee:

- David Goslin, President of AIR, Chair of the Committee
- George Bohrnstedt, Professor of Sociology, Indiana University (newly appointed Vice-President of AIR and Director of the Palo Alto Office)
- Joan Girgus, Professor of Psychology, Princeton University
- James Jackson, Professor of Psychology, Institute for Social Research, University of Michigan
- Gardner Lindzey, President, Center for Advanced Study in the Behavioral Sciences
- Frederick Mosteller, Professor of Statistics, Harvard University
- John Nesselroade, Research Professor of Human Development, The Pennsylvania State University
- John L. Taylor, Director of Learning and Instruction Division, U.S. Department of Education

The committee met four times during the course of the study to review and comment on all aspects of the planning and implementation, including the methodology, data collection instruments, analysis plans, and conclusions.

Constituent workshop

To help ensure close and constructive communication among representatives of NCAA institutions and AIR, we convened a two-day constituent workshop, a forum of individuals representing a variety of roles and frames of reference in intercollegiate athletics. The workshop was held in San Francisco, California, on December 15-16, 1987.

The specific purposes of the constituent workshop were to assemble individuals with varied concerns and involvement in intercollegiate athletics (i.e., constituents), explain the context and design of the study, and review relevant issues. Participants represented 35 institutions nationwide and included CEOs, athletic conference commissioners, athletic directors, primary woman administrators, coaches, faculty representatives, researchers, and former student-athletes.

The workshop sessions were organized to maximize interaction and dialogue among the participants. Small-group discussions focused on the college and university experience of student-athletes and on the recruitment process. A final plenary session was devoted to comments and questions concerning the design of the study. An AIR report, *Study of Intercollegiate Athletics, Constituent Workshop: A Conference to Define Key Issues* (March 1988), provides detailed information. The workshop enabled us to understand some of the issues in new ways, created a sensitivity in planning our data collection procedures, and helped us decide on the categories of information to include in our questionnaires.

Critical incident study

To assist us in identifying different areas of the college experience that can be affected by participation in intercollegiate athletics, we conducted a critical incident study. The study was an application of the *critical incident technique*[1] developed by AIR's founder, John Flanagan. Comprehensive critical incident studies can involve collecting thousands of incidents, but time constraints dictated smaller numbers for our study. The technique is not intended to provide population estimates and does not require a representative sample. It does require a range of respondents with diverse experiences.

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[1] Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin*, 51(4), 327-358.

For the critical incident study, we interviewed former student-athletes by telephone and asked them to describe specific experiences (incidents) that they or their acquaintances had while in college, resulting from participation in intercollegiate athletics. Respondents in the critical incident study had to meet two criteria: they must have participated in intercollegiate athletics and attended college within the past decade.

Our interviewers contacted 102 former student-athletes between November 1987 and January 1988 and obtained 348 critical incidents, a sufficient number for a small-scale critical incident study. The 102 individuals had participated in a variety of intercollegiate sports (37% football, 16% basketball, 21% track and field, and 26% other sports); they included both genders (66% men and 34% women) and diverse ethnic groups (48% black; 52% nonblack). They offered geographic diversity as well, representing 15 athletic conferences, from the Atlantic Coast Conference, through the Big Eight and Mountain West Athletic Conferences, to the Pacific-Ten and West Coast Athletic Conferences.

By categorizing the incidents, we created a taxonomy with six major categories (Personal, Athletics, Social, Academics, Career, and Recruitment) and identified the general and specific areas of the student-athlete experience that can be affected by participation in intercollegiate sports. By further analyzing the areas, we developed rationales that provided the basis for identifying specific variables that could be assessed. Our document *Study of Intercollegiate Athletics, Collection of Critical Incidents: A Study to Identify Key Aspects of the Student-Athlete Experience* (March 1988) describes this study in detail. The variables identified and data collected through the study provided insights and information that we used to develop the questionnaires for our National Study of Intercollegiate Athletes.

Pretest

To test the soundness of our plans and instruments, we conducted a pretest with 66 students at four Division I institutions that offered diversity in size and types of athletic programs. We carried out the pretest just as we planned to conduct the study, testing instruments, forms, and procedures and including students in each of the major treatment groups identified for the study: student-athletes in football and basketball, student-athletes in other sports, and other comparison students. After administration of the instrument, respondents were questioned about any problem areas and encouraged to comment on the wording and perceived intent of the items.

We administered two instruments during the pretest: a personal interview form and a self-administered questionnaire. The mode of data collection (i.e., questionnaire or interview) was randomly selected for each respondent. We planned to use a self-administered questionnaire for students in the main study but anticipated that some might have difficulty reading the booklets and be better served by a personal interview. We planned to interview any students who preferred not to fill out a questionnaire. The pretest results indicated that most student-athletes and other college students in general could read, understand, and fill out the questionnaires without help.

To assess whether the quality of responses would be likely to differ depending upon the mode of data collection, we reviewed the questions we considered most likely to yield different responses: items involving sensitive issues, e.g., parents' income, and items involving matters on which students might want to give "acceptable" answers rather than accurate ones, e.g., number of classes missed per week. We analyzed the data for respondents completing questionnaires versus those interviewed on nine such items, using chi-square and *t*-tests. We found no significant statistical differences in the response patterns for these items. Based on the results of this analysis and the results from debriefing the respondents, we concluded that if interviews had to be conducted in some cases, the data gathered would be entirely comparable to the questionnaire data.

Summary

The Presidents Commission of the National Collegiate Athletic Association (NCAA) sponsored the National Study of Intercollegiate Athletes to help inform debate about the proper role of intercollegiate athletics in American colleges and universities and to understand the effects of participation in sports on students at those institutions. The American Institutes for Research (AIR) was selected to conduct the study. We carried out four activities to prepare for the study: (1) formed a Scientific Advisory Committee to advise us throughout the study; (2) held a constituent workshop to elicit ideas and to enlist support for the study; (3) conducted a critical incident study to learn about the experiences of recent college athletes; and (4) pretested the study's instruments and procedures.

2. Sample Design

The population for the National Study of Intercollegiate Athletes was a subset of the undergraduate students enrolled on a full-time basis at NCAA Division I institutions. Included were all participants in intercollegiate athletics, plus students who participated in other extracurricular activities, and black students who were not identified in either of the other two groups. In this chapter, we first describe the institutions in our sample—the selection procedures and rationale—then the student groups.

Institutional Sample

AIR divided the universe of 291 Division I institutions into these three categories:

- institutions in Division I-A conferences and independent I-A institutions
- institutions in Division I-AA conferences
- institutions in Division I-AAA conferences

These categories were used to reflect the variation in location, size, and public versus private status at the Division I level. We stratified institutions by conference to represent adequately the variations in operating rules and athletic milieus of NCAA Division I institutions.

At the Division I-A level, all existing conferences were included. They are:

- Atlantic Coast
- Big Eight
- Big Ten
- Mid-American
- Pacific-Ten
- Southeastern
- Southwest Athletic
- Western Athletic
- Pacific Coast Athletic Association (now called Big West)

In addition, because 24 institutions compete in football at the I-A level independent of conferences, they were included as a separate "independents" category comprised of three subgroups:

• Metro Group	independent institutions that compete in the Metropolitan Athletic Conference in sports other than football
• Eastern Group	independent institutions that are located in the eastern states
• Other	independent institutions that are not included in the two above categories

Institutions classified as I-AA or I-AAA were also sampled from conferences. The I-AA conferences included are:

- Big Sky
- The Colonial League
- Gateway Collegiate Athletic
- Ivy Group
- Mid-Eastern Athletic
- Missouri Valley
- Ohio Valley
- Southern
- Southwestern Athletic
- Southland
- Yankee

The I-AAA conferences included are:

- Atlantic Ten
- Big East
- Big South—American South*
- East Coast—Colonial Athletic—ECAC North Atlantic*
- Eastern College Athletic
- Metro Atlantic Athletic
- Midwestern Collegiate
- Sun Belt
- Trans America
- West Coast Athletic

In the two cases marked with asterisks (*), we grouped small individual conferences together according to their geographic proximity.

One I-AA institution and 21 I-AAA institutions are not in these conferences; consequently, they were not included in the sampling frame. However, we considered them sufficiently similar to the 141 institutions in the I-AA and I-AAA sampling frames so that the selected frames could represent them. For institutions at the I-AA and I-AAA levels that belonged to more than one conference, we selected the conferences that (1) ensured that all these institutions would be available for inclusion in the sample and (2) best reflected the conference affiliation of these institutions for football and basketball.

Number of institutions

To draw the sample of institutions, we made random selections from within the above-named conferences and independent subgroups. We selected 42 Division I institutions out of the 291 Division I total for 1987-88, on the following basis:

- Division I-A—21 institutions: two from each of the nine conferences, to provide a basis for estimating within-conference variation, and one from each of the three independent groups. We refined the sampling procedure for selecting independents to provide regional coverage among these institutions.

- Divisions I-AA and I-AAA—21 institutions: one from each of the 11 I-AA and ten I-AAA conferences listed earlier.

We planned to maintain confidentiality from the outset of the study; hence no identifying information—e.g., size, historical detail, names of persons associated with the institution or athletic program—is included here or elsewhere in our reports.

Geographic diversity

Although the sampling frame was not stratified explicitly by geography (except for Division I-A independents), the sampling procedure for institutions produced a relatively even geographic distribution for the eight districts and four regional areas defined by the NCAA, as shown below:

Selections by NCAA District

District 1: 2 of 18 institutions
District 2: 8 of 55 institutions

District 3: 9 of 78 institutions

Selections by NCAA Region

Northeast Region: 10 institutions

Southeast Region: 9 institutions

District 4: 5 of 41 institutions
District 5: 5 of 19 institutions
Midwest Region: 10 institutions

District 6: 5 of 34 institutions
District 7: 3 of 18 institutions
District 8: 5 of 29 institutions
West-Southwest Region: 13 institutions

Replacement of institutions

Two of the 42 institutions drawn in our sample declined to participate, and, to ensure an adequate sample size, we replaced each institution with one as similar as possible. It is important to note that the withdrawal of these institutions was a decision made by the CEOs in each case, for reasons unrelated to the study's purpose.

Using College Entrance Examination Board[1] (CEEB) and NCAA conference data regarding institution size and characteristics, we chose the institution most like the one declining to participate. Both replacement institutions agreed to participate and were included in the study. Once the replacements were made and the sample was identified, all institutions were treated the same way, regardless of initial reaction, size, NCAA history, location, prestige, or any other factor.

Representativeness of institutions

How representative are the 42 institutions in our sample? Do they represent the entire spectrum of institutions within Division I? To answer these questions, we used Higher Education General Information Survey[2] (HEGIS) and NCAA sports data to test for differences on a range of variables.

Institutional characteristics. First we considered the characteristics that apply to institutions generally. Table 1 compares the institutions in the sample and the remainder of the population for this study—all of the institutions in NCAA Division I *excluding* those in our sample. Note that although the *n*'s are 42 for the sample and 249 for the remainder of the population, those values vary in Tables 1-3 because data for some institutions were not available.

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[1] College Entrance Examination Board. (1986). *The College Handbook 1986-87*. Twenty-fourth edition. New York: College Entrance Examination Board.

[2] National Center for Education Statistics. *Higher Education General Information Survey*: Degrees and Other Formal Awards Survey (1985-86); Fall Enrollment (1985); Financial Statistics Survey (1986); Institutional Characteristics Survey (1986-87). Washington, DC: U.S. Department of Education.

Table 1.
Results of t-Tests for Variables
Related to Institutional Characteristics

Variable Name	Sampled Institutions Mean	n	Nonsampled Institutions Mean	n	*t*
Minority students (percent)	15.9	41	18.0	232	-0.61
Total tuition and fees (dollars)	3710.5	41	3424.4	246	0.54
Total out-of-state tuition and fees (dollars)	3770.2	26	3681.1	159	0.36
Grants offered (percent of total aid)	45.1	39	45.6	233	-0.17

Small *t* values (i.e., less than 2.00 in absolute value) indicate that there are no statistically significant differences between the institutions in our sample and other Division I institutions on the variables listed. In addition, we compared the sample and this population of institutions in terms of affiliation (public or private) and found that the sample (38% private, 62% public) was comparable to the population (36% private, 64% public). The value for chi-square (df=1) is .076, indicating no statistically significant difference. We further compared the sample and population in terms of environment (urban, suburban, or rural). We again found that the sample (36% urban, 47% suburban, and 17% rural) was comparable to the population (40% urban, 41% suburban, and 19% rural). The value for chi-square (df=2) is .63, indicating no statistically significant differences.

Student body. Table 2 on the next page compares the characteristics of the student populations in the sample institutions and those in the other institutions in Division I.

Table 2.
Results of t-Tests for Variables Related to Student Body of Institutions

Variable Name	Sampled Institutions Mean	n	Nonsampled Institutions Mean	n	t
Total undergraduates (number)	8791.4	42	8526.4	248	0.23
Freshman selection (ratio of applicants to those accepted)	.72	38	.70	205	0.53
Minimum freshman GPA (4-pt.scale)	1.81	40	1.87	224	-1.10
Freshmen in good standing (percent)	85.1	36	82.7	208	1.45
Freshmen who continue to sophomore year (percent)	78.2	38	76.0	224	1.05
SAT composite score for incoming freshmen	980.8	13	1038.6	56	-1.32
ACT scores for incoming freshmen	18.3	7	19.5	56	-1.10

The *t*-values are again small, indicating no significant differences in the two student populations on these variables.

Sports history and involvement. Narrowing our focus to the sports programs at our sample institutions, we tested for significant differences to see if the sample represented the range found among other Division I institutions. Table 3 reports the results.

Table 3.
Results of t-Tests for Variables Related to Institutional Sports History and Involvement

Variable Name	Sampled Institutions Mean	n	Nonsampled Institutions Mean	n	t
Membership in NCAA (years)	49.4	42	45.1	247	1.24
Men's championships won (number)	2.6	42	2.4	247	0.39
Women's championships won (number)	1.8	42	1.6	247	0.71
Men's sports sponsored (sum)	8.6	42	8.5	249	0.27
Women's sports sponsored (sum)	7.6	42	7.5	249	0.16
Mixed sport sponsored (sum)	0.2	42	0.2	249	0.09

Table 3, like Tables 1 and 2, indicates that the tests of sample representativeness revealed no statistically significant differences between the 42 institutions in our sample and the other 249 Division I institutions on any of the variables we examined.

Student Sample

The National Study of Intercollegiate Athletes had two principal objectives:

1. to provide descriptions of the experiences and perceptions of student-athletes, especially participants in football and basketball
2. to identify, insofar as possible, the extent to which these experiences and perceptions represent effects of participation in intercollegiate athletics, including the recruiting process

For the first objective, it was necessary to have a sufficiently large sample of student-athletes, especially football and basketball players. For the second objective, it was essential to have comparison groups. We selected two comparison groups: students extensively involved in extracurricular activities other than intercollegiate athletics and black students not involved in either intercollegiate athletics or extracurricular activities. The three sample groups are described below. Sample sizes and rationales are presented, and a summary table follows.

Student-athletes

Football and basketball players. Football and men's basketball are generally recognized as the sports that command the most national attention in Division I institutions, so they were heavily represented in the sampling plan. To address the important concerns of female student-athletes, we also included in our sample the most highly visible women's sport, basketball. Other sports may be as important or popular at Division I institutions in some regions of the country, but football and men's and women's basketball receive the most national attention.

In some Division I football programs, the total number of participants is quite large and may include a disproportionate number of freshmen: walk-ons (students who are not recruited), redshirts (students who practice but do not compete), and active competitors. To ensure that each class was adequately represented among the sample of football players, our lists of football players were stratified by class (i.e., freshman or other), and student-athletes were selected at random from these strata in a ratio of one freshman for every two members of the other classes. Stratification by class was not necessary for basketball because adequate variation in class was achieved by random selection. Stratification by receipt of athletic grants-in-aid was not necessary for football and basketball because the majority of Division I players in these sports receive grants-in-aid.

Student–athletes in other sports. The sample in Division I sports other than football and basketball was divided equally among three categories:

1. males with grants-in-aid
2. females with grants-in-aid
3. males and females without grants

Among student-athletes in other sports, recipients of athletic grants provided the closest comparison to football and basketball players. We therefore defined two categories of student-athletes who receive grants for other sports: males and females. These categories provided a basis for comparing student-athletes receiving grants in football and basketball to student-athletes receiving grants in other sports. We also defined a category of student-athletes not receiving grants in other sports. This category provided a basis for comparing students-athletes not receiving grants to those receiving grants, and football and basketball players receiving grants to student-athletes in other sports not receiving grants.

Stratification by class was not necessary for these sports because adequate variation in class was achieved by random selection. Stratification by gender also was not necessary for the group of males and females without grants as this group consisted of approximately 50% males and 50% females.

Extracurricular students

Any study of intercollegiate athletes must provide the basis for comparing student-athletes with students who do not participate in athletics. We considered establishing a comparison group of "just plain" college students—those who attend class but do not participate in athletics or other activities for more than minimal amounts. We needed to use limited resources as efficiently as possible while still providing useful comparison for student-athletes, the main focus of our study. After discussing the issue of an appropriate comparison group with members of the Presidents Commission overseeing the study, we jointly decided to identify students not participating in intercollegiate athletics but involved in time-consuming activities that were in many ways comparable to the demands of athletics. These students provided a conceptually defensible comparison and one that addressed directly one set of questions posed by the Presidents Commission in the *Agenda for Reform*.

From each institution, we obtained lists of full-time students who do not participate in intercollegiate athletics but are extensively involved in extracurricular activities. The activities were characterized by the following:

- the time demands they place on students (15 or more hours per week)
- the competition they involve
- the physical and emotional pressures associated with successful performance
- their career-related possibilities
- the relatively young age at which students were likely to have been identified as having a special talent for this activity
- the real costs to participants of terminating participation (e.g., loss of an important opportunity for self-expression)

General categories of the extracurricular activities are the following:

- music, including marching band, orchestra, and choral groups
- other performing arts, including drama, dance, and cheerleading
- journalism, including student newspaper and radio broadcasting
- employment, including work-study programs

The activities selected for inclusion varied among the institutions, depending on emphasis, popularity, and support. Lists of students meeting the criteria were stratified by class (i.e., freshman or other), gender, and race (black or nonblack) to ensure adequate samples across all institutions. To the extent possible, blacks and nonblacks and men and women were selected in equal numbers, and freshmen and others were selected in a ratio of two to three. This plan for sample selection could not be met on many campuses, however, because extracurricular students tended to be upperclassmen, and some campuses had fewer black students outside athletics than the number sought.

Black students

At many Division I institutions, black students comprise a significantly higher percentage of student-athlete groups than of college students as a whole. We felt that by including only those few black students who participate in extracurricular activities on those campuses to compare to student-athletes, we would not be providing a representative comparison for the black student-athletes, particularly in the range of socioeconomic backgrounds they might represent. Therefore, we selected a comparison sample of black students not in extracurricular activities or athletics to ensure this representation. To understand a finding that black student-athletes are socially isolated at a predominantly white institution, for example, we would be able to test whether other black students at that institution experienced comparable isolation. At each institution, we identified black students who were not student-athletes and not in extracurricular activities, and we stratified the lists by gender (one to one) and class (two freshmen to three others).

Sample Sizes

Estimating the total sample sizes required for particular comparisons depended in part on information that would be available only after the data were collected. Consequently, we made estimates of the level of precision required for comparisons and the relative amounts of variation among and within institutions. Various heuristics were used, and the final determination of sample size was based on our desire to identify at least a 10% difference between specific sampling categories with a probability of .80, with a two-tailed alpha level of .05. That is, in the case of a 10% difference, we would require the data to indicate a significant effect 80% of the time if we tested for this difference with a two-tailed alpha level of .05.

The required sample sizes for specific comparisons depend on the actual percentages obtained for particular items. We chose the case with maximum variance—that is, a dichotomous item with a 50-50 split. For this case, meeting our goal required sample sizes of 392 for each comparison group, assuming random sampling, as shown in Table 4.

The sample size required for detecting a difference between proportions in two equal-sized samples can be estimated as follows:[3]

$$(z(\text{alpha}) + z(\text{beta}) \times (2 \times \text{var}(p))^{1/2} = (\text{P2} - \text{P1})$$

$$(z(\text{alpha}) + z(\text{beta}) \times (2 \ / \ 4n)^{1/2} = (\text{P2} - \text{P1})$$

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[3] Hays, W. L. (1963). *Statistics for psychologists*. New York: Holt, Rinehart, and Winston, Inc.

For alpha (two-tailed) to equal .05 and beta to equal 1.00 - .80 = .20 and a difference of percentages equal to .10, we have

$$(1.96 + .84) \times (1 / 2n)^{1/2} = .10$$

$$28.0 = (2n)^{1/2}$$

$$392 = n$$

This formula indicates the need to select 9.33 individuals per institution (392+ 42). Thus, a sample of ten per group per institution was our goal. Applying this number to the entire sampling design, we obtained the theoretical sampling matrix presented below.

Table 4.
Theoretical Sampling Matrix

	Division			Total All Institutions
	I-A	I-AA	I-AAA	
Institutions	21	11	10	42
Students per institution:				
Football (10 freshmen : 20 others)	30	30	0	960
Men's Basketball	10	10	10	420
Women's Basketball	10	10	10	420
Other Division I Sports				
Males with grants-in-aid	10	10	10	420
Females with grants-in-aid	10	10	10	420
Males and females, no grants	10	10	10	420
Extracurricular Students (10 blacks : 10 nonblacks; 10 men : 10 women; 8 freshmen : 12 others)	20	20	20	840
Comparison Sample of Black Students (5 men: 5 women; 4 freshmen : 6 others)	10	10	10	420
Total	110	110	80	4,320

We established the ratio of 3:1:1 (football to men's basketball and women's basketball) to take into account the disproportionately large size of football squads. Because Division I-AAA institutions do not compete in football, the 3:1:1 ratio holds only for I-A and I-AA institutions. We stratified for class in football (10 freshmen to 20 upperclassmen) and in the extracurricular and black student comparison groups (four freshmen and six upperclassmen in each group of ten). We stratified for gender in the extracurricular and black student comparison groups, with equal numbers of males and females.

Procedures for Drawing Sample

Drawing the sample involved gathering lists for each institution. For each intercollegiate sport sponsored at the Division I level, the NCAA requires that the institution prepare squad lists, which include the names of all students who compete or receive athletic grants in that sport. We obtained copies of these lists and checked them to remove "doubles" (names appearing on more than one list) and to ensure completeness, and we indicated the class of each football player (freshman or other).

In the case of doubles, we used a system of priorities to determine the group in which a particular student should be included, with football and basketball as the top priorities. For example, a football player who also participated in an extracurricular activity was included only on the football list; a black student who participated in track was included only on the track list; a female basketball player who also participated in tennis was included only the basketball list.

In cases where we found that students were incorrectly classified or were not enrolled at the beginning of the 1987-88 academic year, we randomly selected a replacement from the lists of alternates for that sampling category at the institution. This was done in fewer than 40 cases.

The lists of names for each category (e.g., football) were numbered, and sets of random numbers (e.g., 3, 9, 11) were generated and applied to the lists (e.g., third, ninth, and eleventh names). Names on the list corresponding to the random numbers were selected until we had reached the required number of respondents from each group. For each group, we identified primaries—the names drawn in the first selection—and alternates—an additional set of potential respondents which was 50% the size of the sample of primaries for each stratum. The alternates were to be contacted if needed to reach the numbers in the sampling matrix. Thus the sample of football players, for example, was 30 primaries and 15 alternates. The strategy of selecting alternates was used because of extreme time pressure on the data collection process and our uncertainty about the success rate to be achieved by that process.

Names, unique identifiers, and descriptions of (1) sampling category and priority and (2) type of booklet to be administered were then entered into a computer file. We followed this procedure until we obtained the requisite number for each sports category. For comparison students, we went through the same process, using lists of extracurricular and black students and noting class (freshman or other), race (black or nonblack), and gender on these lists.

Variations in sample size

Our study sample of 42 institutions included five special cases:

1. Ten institutions either do not have football teams or do play football but not at the Division I level: they are in Division I-AAA. As shown in Table 4 above, the total sample at each of these ten institutions was reduced by 30, the number included for football at other institutions in the sample.

2. Three institutions do not have women's basketball teams, so the sample size for student-athletes at these institutions was reduced by ten.

3. Three institutions do not offer athletic grants. For them, our strategy was to increase the size of the nongrant participants.

4. Three institutions are predominately black. At these institutions, our strategy was not to include a comparison group of black students, but instead to add ten to the extracurricular group at each institution.

5. Some institutions do not have squad sizes large enough to meet our quotas (e.g., there were fewer than ten women on the basketball squad). We reduced our sample size accordingly.

We obtained lists of the complete populations of black students at 39 institutions; at three institutions, we could not obtain these lists. At two of those institutions without complete lists, university personnel made selections on the basis of our instructions and notified students. (We did not know the students' names.) At the other institution, university personnel randomly selected 50 black students, and we drew our sample from that group.

After the adjustments just described, our target sample was as follows:

Table 5.
Actual Target Sample, by Category

Category	Matrix Size	Sample Size	Variation from Theoretical Matrix
Football	960	960	0
Men's Basketball	420	420	0
Women's Basketball	420	389	-31
Other Division I Sports			
Males with grants-in-aid	420	395	-25
Females with grants-in-aid	420	384	-36
Males and females, no grants	420	451	+31
Extracurricular Students	840	870	+30
Comparison Sample of Black Students	420	390	-30
Total	4,320	4,259	-61

Summary

The focus of this study was full-time undergraduate student-athletes at Division I institutions that compete at the Division I level in NCAA. For our sample, we selected 42 institutions: 21 institutions from Division I-A, 11 institutions from Division I-AA, and 10 institutions from Division I-AAA. For each institution in Division I-A or I-AA, insofar as possible, we selected approximately 80 student–athletes: 30 football players, 10 men's basketball players, 10 women's basketball players, and 30 participants in other sports (including both men and women and those with and without grants–in–aid). For comparison groups at each campus, we identified 20 students who participated extensively in other extracurricular activities and 10 black students who were not part of the student–athlete or extracurricular student groups. For each institution in Division I-AAA, we selected 10 men's basketball players, 10 women's basketball players, 30 other student-athletes, 20 extracurricular students, and 10 black students.

3. Instrument Development and Selection

This chapter describes the instruments we used to survey each of the student groups: the content, the three versions, the self-description inventories included, the questionnaire and interview formats, and the accompanying address and information release forms that each student was asked to sign. Complete copies of the questionnaires and forms are included in Appendixes A through E.

Content

The NCAA Presidents Commission specified eight broad sets of questions for consideration in their *Agenda for Reform*. The National Study of Intercollegiate Athletes was designed to address the first four sets:

- How do the experiences of college or university life of student-athletes compare with those of other students who devote a great deal of time to a particular extracurricular activity?

- How do the experiences of student-athletes differ depending upon whether one is a participant in big-time sports or in sports that are not given a heavy emphasis?

- How do the experiences of student-athletes compare with those of other students in terms of courses taken, classes attended, time spent on or off campus, and tutoring received? How do student-athletes feel about and evaluate their experiences? Do they see themselves as beneficiaries of fine programs, or as exploited? How do they personally experience the balance between athletics and academics in their daily lives?

- How are student-athletes recruited? How do recruitment activities differ depending on the intensity of the athletic program? What are the differences in test scores and grade-point averages between athletes and other students? How do recruited students personally experience the process of choice of college and university and the role of athletic recruitment in that process?

These questions provided the focus for the development and selection of items for the instruments. Also guiding this process was the information gathered during our preparatory steps (Scientific Advisory Committee meetings, constituent workshop, critical incident study, and pretest) and our review of related research.

Differences among the three versions

We developed questionnaires in three versions: one for student-athletes, one for extracurricular students, and one for the comparison sample of black students. The questionnaire for student-athletes consisted of 116 items; the versions for extracurricular students and black students were slightly shorter but covered the same topics. In addition, the three versions included an identical set of self-description inventories. Table 6 compares the number of items for each topic, by version.

Table 6.
Items on Each Topic
in Three Versions of the Survey

Topic	Student-Athlete	Extracurricular Student	Black Student
Class, sport/activity	6	5	3
Importance of degree, career expectations when first enrolled	4	3	3
Importance of degree, career expectations now, influences, goals	11	9	9
Educational experiences: attendance, course difficulties, satisfaction	10	9	8
Personal/interpersonal experiences at college	19	17	10
Recruitment/college choice experiences	15	15	15
Use of time at school	7	7	5
Financial situation	15	15	15
Health, injuries, health care	13	13	12
General—birth, background, high school grades, scores	10	10	8
Parents' income, jobs, education*	5	7	5
Open-ended question	1	1	1
Subtotal	116	111	94
Self-Description Inventories:			
Rosenberg Self-Esteem Scale	10	10	10
Spielberger Trait Anxiety Inventory	20	20	20
CES-Depression Scale	20	20	20
Levenson Locus of Control Scales	18	18	18
Total	184	179	162

* The extracurricular student version had two questions that in the other two versions were combined with other questions. The same information was solicited in all three versions.

As Table 6 indicates, the content was as nearly identical as possible in all three versions. Obvious changes in wording were made, for example for references to *you, as a college athlete; you, as a participant in extracurricular activities;* or *you, as a black student.* Questions in the student-athlete version that referred to a *coach* or *the coach of your main sport* referred in the extracurricular student version to the *organizer/ director of your main extracurricular activity.* No comparable questions on coaches or organizers of activities were included in the version of the instrument intended for black students.

Five items were in the student-athlete version and not in the extracurricular student version; e.g., playing time or position on roster and plans to become a professional athlete. Twenty-two items were in the student-athlete version and not the black student version, e.g., the perceived importance of a coach interacting with students in various ways and satisfaction with performance in intercollegiate activities. In a few instances, items were excluded from the black student version because changing the reference group (from student-athletes or students in the same extracurricular group) made them potentially offensive.

Self-description inventories

As the baseline for a series of planned longitudinal studies, our National Study of Intercollegiate Athletes had to include information that would help to explain patterns of change in later years. It had to characterize the students so that they would be described as completely as possible at present.

To provide baseline data and to measure the psychological makeup of all of the students in our sample, we included some psychological measures. We were concerned about the length of the questionnaire, aware that the time and patience of college students are limited, but felt that the psychological measures would be important for future studies. Our Scientific Advisory Committee helped us make selections and keep our questionnaire to a reasonable length. We chose a total of 68 items from four psychological measures:

- Rosenberg Self-Esteem Scale—a 10–item scale that measures the self-acceptance aspect of self-esteem. Morris Rosenberg, *Society and the Adolescent Self-Image.* Copyright (c) 1965 by Princeton University Press; Princeton Paperback, 1968. (Self-Esteem Scale, Appendix D, pp. 305-319.) Used with permission of Princeton University Press.

- Spielberger Trait Anxiety Inventory—a 20–item measure of an individual's tendencies to see stressful situations as dangerous or threatening and to respond with heightened anxiety. Charles D. Spielberger, *State-Trait Anxiety Inventory* (Form Y) ("Self-Evaluation Questionnaire"). Reproduced by special permission of the publisher, Consulting Psychologists Press, Inc., Palo Alto, CA.

- CES-D scale—a 20-item measure of the major clinical symptoms of depression. Developed by the Center for Epidemiologic Studies in the National Institute of Mental Health, the CES-D is in the public domain.

- Levenson Locus of Control Scales—a 24-item measure of beliefs about three dimensions of control: Internal Control, Powerful Others, and Change. Permission granted by Dr. Hanna Levenson and the American Psychological Association, publisher of journal articles that described the scales.

We used all of the Rosenberg and CES-D scales and the Spielberger TAI and 18 items from the Levenson scales. Decisions to exclude items were made in consultation with our Scientific Advisory Committee and were driven by the need to limit the length of the questionnaire without sacrificing valuable information.

Q and I booklets

Two forms of the questionnaire were prepared: *Q*, a self-administered questionnaire for respondents, and *I*, an interview booklet identical in content to the questionnaire for data collectors to use with accompanying handcards. The handcards listed the various responses for multiple-choice responses (e.g., *Of Greatest Importance, Important, Somewhat Important, Not Important At All*) and provided respondents with a handy reference so that they did not have to memorize the various responses. The contents of the self-administered questionnaire and the interview booklet were identical. *Q* and *I* booklets were available for all three versions of the questionnaire: student-athlete, extracurricular student, and black student.

During the pretest (see Chapter 1), the responses from interviews and self-administered questionnaires were examined in detail to estimate possible bias, and no significant problems were identified. We provided *Q* and *I* booklets at every site, but the *Q* booklet was the basic document to be used. The *I* booklet was intended for students who requested it or who experienced difficulty with the length, reading level, or content of the self-administered questionnaires. Our plans were that data collectors would monitor the administration process carefully, offering interviews to students who asked for assistance or evidenced difficulties in completing the self-administered booklet.

Three forms

We used an informed-consent process at each institution. (See Chapter 4, Data Collection.) We also prepared three forms for respondents to complete:

- Consent to Participate—a concise statement of the purpose of the study so that respondents knew what they were being asked to do and why
- Permanent Address—a means for obtaining a permanent address for the student for follow-up studies
- Permission to Release Transcripts—authorization to obtain copies of the respondent's high school and college transcripts and scores on the ACT and SAT

Summary

The basis of our data collection was a questionnaire with 116 items covering personal experience and 68 self-description items. Three versions of the questionnaire were prepared for use with the principal comparison groups—student-athletes, extracurricular students, and black students. The content of the instrument focused on the questions posed by the NCAA Presidents Commission about the college experiences of students and the effects of participation in intercollegiate sports. Both self-administered and interviewer-administered forms of the questionnaire were developed, and forms were included for respondents' addresses, copies of high school and college transcripts, and ACT and SAT scores.

4. Data Collection

This chapter describes the preparations made for collecting data at each of the 42 institutions, the standard procedures for data collection, and the response rates.

Links between AIR and Institutions

Liaisons at each institution

In agreeing to participate in our National Study of Intercollegiate Athletes, the CEO of each institution designated a liaison to assist AIR. The positions, or titles, of these liaisons varied among the 42 institutions. In a majority of the cases, the liaison was a vice president (often, the Vice President for Student Affairs) or an assistant to the president; in some cases, the athletic director. The liaison served as a link between AIR and the institution, providing information about the institution and helping us gain cooperation from others at the institution.

Institutional coordinators from AIR

At each of the 42 sites, an AIR staff member, known as an "institutional coordinator," was responsible for the data collection. The institutional coordinator had five main tasks:

1. Establish good working relationships with key people at the institution, including the liaison, members of the athletic department, advisors for extracurricular groups, minority students advisor, and registrar.

2. Identify students for the study, by obtaining lists of student-athletes in intercollegiate sports, participants in extracurricular activities, and black students.

3. Hire and train data collectors, using the study's training manuals.

4. Arrange the places and times for data collection, working with coaches and advisors to identify the most convenient times and most accessible places.

5. Arrange for notification of students in the sample, by having letters sent by the athletic director, dean of students, directors of minority students offices, CEO, or other administrator appropriate for each group.

Twenty institutional coordinators supervised data collection at the 42 sites; half were staff members from AIR's offices (in California, Washington, DC, and Massachusetts). Training for institutional coordinators consisted of an orientation session that included the constituent workshop (in December 1987) and a two-day training session in Palo Alto, California (in January 1988).

Timeline for Preparation

During the period from November 1987 through February 1988, a number of preparatory tasks were carried out. The timeline in Table 7 summarizes these tasks; the responsible persons are indicated in parentheses.

Table 7.
Timeline for Preparatory Tasks

	1987		1988	
Activity	Nov.	Dec.	Jan.	Feb.
Telephone CEOs; obtain name of liaisons (AIR staff–Palo Alto)	X-------	X		
Contact liaisons; outline plans and needs (AIR staff–Palo Alto)		X-------	X	
Train institutional coordinators (AIR staff–Palo Alto)		X	X	
Make initial visits to institutions (Institutional coordinators)			X-------	X
Assemble, distribute materials to each site (AIR staff–Palo Alto)				X

Manual for institutional coordinators

Our plans provided for the institutional coordinators to visit each of their institutions at least twice, with additional visits as needed. We developed an *Institutional Coordinator's Manual* that prescribed the procedures for data collection. It was the basis for training the institutional coordinators and served as their guide during data collection. The manual included the following sections:

- Introduction—purpose of materials, overview of project, description of the NCAA, and overview of institutional athletic programs

- Preparation for Site Visits—background information needed for each site, initial contacts with institution, preparation for first call to liaison, first call to liaison, and recruitment of data collectors

- First Site Visit—introductions and preparation, procedures to identify the samples, hiring of data collectors, review of first site visit, follow-up to site visit, development of list selections, development of schedules

- Second Site Visit—completion of paperwork to hire data collectors, training of data collectors, procedures for monitoring interview and questionnaire administration

- Procedures for Coding and Mailing Study Materials—rosters, materials for respondents, materials for data collectors, procedures for mailing completed materials

- Interview Instructions and Procedures—*I* booklets and handcards in three versions

- Questionnaire Instructions and Procedures—*Q* booklets in three versions

- Travel Guidelines—travel arrangements, expense documents

- Recordkeeping—documentation of telephone calls and site visits, submission of copies of letters and other correspondence, maintenance of rosters and other records of data collection

- References—troubleshooting, schedule, glossary

The manual was supplemented by weekly status reports and instructions from the study's field coordinator in Palo Alto.

Manual for data collectors

We also developed a manual for each data collector, which provided the focus for training and a reference during data collection. The manual included the following topics:

- Overview of the Study—purpose and importance

- Coordination of the Study—roles of the liaison and institutional coordinator

- Preparation for Data Collection—activities conducted prior to training for data collectors

- Schedules and Time Requirements—procedures for scheduling to accommodate institutional schedules and allow sufficient time for students to complete the questionnaires

- Compensation—salary, forms to submit for pay

- Importance of Quality Data—"our first priority"

- Responsibilities of Data Collectors—tasks and expectations

Standard Procedures for Data Collection

Data collection took place from March 14 through July 15, 1988. The same procedures were followed at each institution; the institutional coordinators were responsible for implementing them on each campus.

Data Collectors

Institutional coordinators hired data collectors for each institution. In a few cases, two institutions were close enough that data collectors could work at both. Data collectors were experienced researchers from a range of backgrounds, varying with the institution and personnel available. Included in the overall group were employees of university research centers and market research firms, census workers, and graduate students. Special efforts were made to hire individuals with no connections to the study's institutions, so that, for example, any graduate students hired were at nearby institutions, not at the one where data were to be collected. For each site, a sufficient number of data collectors were hired so that at least one would be present for each four or five students scheduled to complete a questionnaire at one time.

Institutional coordinators trained all data collectors for their site during a one-day session, then monitored the first data collection sessions and provided feedback to data collectors. Supervision following the first sessions was the institutional coordinator's responsibility but varied with the circumstances. In cases in which the institution was a considerable distance from the institutional coordinator's office or base, the institutional coordinator relied on a designated on-site coordinator and frequent telephone contact. In cases where the institution was within easy driving distance, the institutional coordinator was on hand for much of the data collection. In all cases, the work of data collectors was closely monitored to ensure that the highest standards of accuracy, reliability, and confidentiality were met.

Confidentiality

Confidentiality was of prime importance from the beginning of the work. Institutions were assured that their participation would be kept confidential. The names of student participants were maintained with strict confidentiality. Students had to feel certain that they could respond openly, without fear that they would be identified.

We implemented four procedures to ensure that confidentiality would be maintained. Each is described below.

Nondisclosure agreements. As a condition of employment, all data collectors signed nondisclosure agreements before they were given any lists of student names. Data collectors were not given lists describing any institution but the one to which they were assigned. By signing the agreements, data collectors promised not to disclose the names of students or any other information related to the study.

Confidential ID codes. We established a system of confidential ID codes for respondents. These numbers were assigned when the samples were drawn; data collectors wrote them in at the top of each form and booklet as students completed them, so students could see that their names would not appear on booklets.

Separate mailings. Completed materials were sent to AIR–Palo Alto in separate mailings; i.e., forms and booklets were not sent in the same package. This ensured that if a package of completed booklets was lost, the only identifier on the package would be a code number, not the name of a student or institution.

Recoding. As each booklet was logged in at AIR–Palo Alto, a new identification number was assigned to it. The number was attached over the old one, concealing all of the original identification, so that field staff could not identify individuals, groups, or even institutions on the basis of the code numbers used previously in the field.

Informed-consent process

To facilitate the informed consent of participants in our study, we arranged several means for providing information to student participants.

Letters and brochures. The institutional coordinators arranged for each study participant to receive a letter describing the study. Letters were typically sent by

CEOs, athletic directors, deans or directors of activities, and directors of minority students offices, depending on the group (student-athlete, extracurricular, or black student) and the institution. AIR provided the basic format for letters; institutions made minor revisions and sent them out on their letterhead. Included in each letter was a study brochure that summarized the study's purposes and procedures.

Coaches' and advisors' meetings. Institutional coordinators met with the coaches and advisors of extracurricular and black student groups included in the study to inform them about the study and to enlist their support. The coaches and advisors were asked to talk with students about the study and to urge their participation. These information meetings answered questions and provided another source of information and motivation for students selected to participate in the study.

Telephone calls to students. Many of the students selected for participation in the study received personal telephone calls, usually from data collectors and in some cases from institutional personnel. Students were told again what the study was for and how they could participate, and they had a chance to ask any questions about it.

Data collector briefing. Both during their training and in their manual, data collectors were given extensive information about the study so that they clearly understood its purposes and procedures. Hence they were well prepared to provide information to students, both by telephone and at the data collection sites.

Forms. Upon reporting to the data collection site for participation, students were given three forms to sign, one of which formally gave their informed consent to participate. These forms are described in Chapter 3, Instrument Development and Selection.

Procedures for administering questionnaires

Questionnaires were administered in the same way at each site and in each situation, whether for a group or an individual. At least one data collector was present for each group of four or five students scheduled, and these steps were followed:

- The student reported to the room as directed in a letter or telephone call (or both). A data collector greeted the student, asked her or his name, and located it on the roster.

- The data collector asked if the student knew the purpose of the study and had any questions about it; if so, those questions were addressed. Typically students were already knowledgeable about the study from the letter and brochure they had received plus explanations from coaches, advisors, or persons who had telephoned them to schedule appointments.

- The data collector gave the student the three forms to sign (Consent to Participate, Permanent Address, and Permission to Release Transcripts). If the student refused to sign the Consent form, the data collector thanked and excused the student. The other two forms were optional, but students were encouraged to sign them.

- The data collector added the student's code number to the forms, then selected the correct booklet for the student (the version for student-athletes, extracurricular students, or black students) and wrote in the student's code number. The student was then given the booklet to complete.

- Each student filled out the booklet independently. Data collectors monitored the process so that if a student seemed puzzled, for example, a data collector offered to answer questions. If a student seemed to have trouble completing the booklet in a reasonable amount of time, a data collector offered to get the information through an interview rather than the self-administered questionnaire. Data collectors kept the rooms quiet and maintained an exam–like atmosphere to minimize distractions and to ensure that students reported their own ideas and experiences without being influenced by others in the room. Most students took 45 minutes to an hour to complete the questionnaire.

- When finished, each student turned in the booklet to a data collector, who looked through it to make sure that no items were omitted. The student was then thanked and excused. The data collector signed and dated the booklet and recorded the student's completion of the booklet on the roster.

Attitudes and behavior of students

Communications with students emphasized the importance of participation and the fact that this was a national study involving more than 4,000 college students. We tried to make each selected student aware of our desire to include their unique ideas and experiences. We made it clear to everyone—students, campus personnel, data collectors, and others concerned with the study—that AIR's overriding goal was to collect sound, reliable data.

Students seemed to understand the importance of the study and our interest in surveying each of them. All of the students who kept appointments to complete the questionnaires, including both student-athletes and comparison students, seemed to take the task seriously. Even the few who expressed initial reluctance quickly focused on their task; all worked quietly and conscientiously.

Procedures for follow-up

At each of the institutions, significant numbers of the sample were obtained during the first days of the data collection. Students responded to the letters and telephone calls, kept their appointments, and completed the survey booklets as scheduled. After this initial group completed surveys, data collectors (and in some cases, school personnel) telephoned students who had not participated and tried to arrange individual appointments. In some institutions, these follow-up telephone calls were sufficient, and the data collection was completed in about two weeks. At other institutions, the process took longer and required more follow-up calls and more persistence on the part of data collectors.

College students are difficult to reach by telephone for a variety of reasons. It is difficult to obtain their telephone numbers because campus telephone books are often unavailable or inaccurate. Students move frequently, so that many telephone numbers that were correct in September are no longer correct in April or May. Furthermore, even with correct numbers, students are often out--studying, attending class, practicing, or eating—and messages for them often go undelivered or are ignored.

Data collectors used a variety of strategies to reach students, including telephoning them at different hours; sending messages through teammates, friends, or co-participants in extracurricular activities; getting telephone numbers through parents (when permanent addresses were available); and visiting dorms or other places on campus where the students selected for the study were likely to be found, e.g., the weight training room, study table, newspaper office, radio station, music department, and black students' union. The common denominator for success in reaching students was persistence.

Replacement of students

When students could not be contacted, repeatedly failed to keep appointments, or explicitly declined to participate, they were considered nonrespondents. To ensure adequate sample sizes at each campus, alternates were then contacted. All respondents were treated the same, whether identified for the primary or alternate sample. The only relevant difference is that between respondents (whether primary or alternate) and nonrespondents. For more information on nonrespondents and the possible bias introduced by nonresponse rates, see the next section below and Chapter 5, Development and Preparation of Data Files.

Response Rates

We drew a primary sample of 4,259 students and an additional alternate sample of approximately 2,130. (At some institutions, groups were not large enough to provide the additional 50% for the alternate sample.) We concentrated on obtaining data from the primary sample and contacted members of the alternate sample only when we did not reach our quotas from primaries. Thus we made no attempt to contact most of the 2,130 alternates who were selected. A breakdown of the returns from the primary sample is shown in Table 8 below.

Table 8.
Response Rates for Primary Sample

Category	Sample Size	Primary Respondents Number	Primary Respondents Percent	Nonrespondents Number	Nonrespondents Percent
Football	960	739	77	221	23
Men's Basketball	420	350	83	70	17
Women's Basketball	389	336	86	53	14
Other Sports Male (grant)	395	319	81	76	19
Other Sports Female (grant)	384	335	87	49	13
Other Sports Mixed (nongrant)	451	324	72	27	28
Extracurricular Students	870	598	69	272	31
Comparison Sample of Black Students	390	209	54	181	46
Total	4,259	3,210	75	1,049	25

As Table 8 indicates, response rates from the groups in the primary sample ranged from 86% for female basketball players to 54% for the comparison group of black students, with a rate overall of 75%.

We focused our data collection efforts on the students in our primary sample; however, we also collected data from alternates selected at random to satisfy our quotas for each institution. We treated the alternates just like the primaries: their names were selected at the same time and with the same procedures as for the primary students; the alternates filled out the same questionnaires under the same procedures as the primary sample. The returns from alternates are shown in Table 9.

Table 9.
Participation of Alternate Respondents in Study

Sample Group	Alternate Respondents
Football	178
Men's Basketball	59
Women's Basketball	49
Other Sports Males (grant)	75
Other Sports Female (grant)	56
Other Sports Mixed (nongrant)	105
Extracurricular Students	225
Comparison Sample of Black Students	126
Total	873

Table 10 indicates the respondents from both primary and alternate samples: all of the students who participated in our study.

Table 10.
Primary and Alternate Respondents in Study

Sample Group	Primary Respondents	Alternate Respondents	Total Respondents
Football	739	178	917
Men's Basketball	350	59	409
Women's Basketball	336	49	385
Other Sports Males (grant)	319	75	394
Other Sports Female (grant)	335	56	391
Other Sports Mixed (nongrant)	324	105	429
Extracurricular Students	598	225	823
Comparison Sample of Black Students	209	126	335
Total	3,210	873	4,083

In addition to the 4,083 total respondents, another 32 students completed the wrong versions of the booklets: e.g., a black student-athlete who was given the booklet for black students. These responses were excluded from the database.

Nonrespondents

The study achieved a high response rate in all categories except for the comparison sample of black students, where only a 54% response rate was achieved among primary selections. Our first report of major findings, Report No. 1: *Summary Results from 1987-88 National Study of Intercollegiate Athletes,* does not include the comparison sample of black students. We are currently conducting a follow-up study of all primary nonrespondents, and when it is completed a special report will be issued on the experiences of black student-athletes.

We examined information from our institutional coordinators on football players to determine why 221 out of 960 (about 22%) did not participate. Our findings are summarized in Table 11.

Table 11.
Reasons for Not Participating:
Primary Nonrespondents in Football Category

Reason	Number	Percent of Football Primary Nonrespondents
Not on campus	67	30.3
Unable to contact	54	24.4
Failed to keep appointment to complete survey	32	14.5
Refused to participate	28	12.7
Unknown; no information obtained	40	18.1
Total	221	100.0

The percentage not on campus was probably higher for football players than for other students because of the passage of time between the end of football season and the start of data collection in the field.

Survey items

As shown in the previous chapter, we asked student-athletes to complete 116 items; extracurricular students, 111; and the comparison sample of black students, 94; plus the 68 items of the self-description inventory in each case. If participating students did not complete all of the items, we included the items they did complete in the database and set the other values to "missing." We intentionally placed the open-ended question and the self-description inventories at the end of the booklets so that if students ran out of time or patience, they would already have given us the most critical information related to the study questions.

Determining the exact number of missing responses involved careful examination of individual items, because (1) many are filter questions that direct respondents to omit certain items on the basis of their responses (e.g., *If Yes, go to question 13; If No, go to question 17*) and (2) some questions are in one version of the questionnaire and not in another (e.g., student-athletes were asked if they expect to be professional athletes; extracurricular students and the comparison sample of black students were not asked a comparable question), thus reducing the number of responses sought.

We examined the frequencies for item responses to identify any items that were not answered by 2% or more of those who should have responded. We identified only three items. Two of these items were asked of all students: *With whom do you spend most of your free time on campus?* (5.4% did not answer) and *Approximately what was your parents' total income during the past year, before taxes, so far as you know?* (2.9% did not answer). The fact that the income item did not include a "Don't know" response may have been a factor. A third item followed up a question about attendance at junior college; and of the 409 students who responded "Yes" to having attended junior college, 154 failed to answer the follow-up question. For all of the remaining items, at least 98% of the students responded as directed.

Self-description inventories

For each of the four self-description inventories included in our survey, we established the number of items that a student had to complete in order for us to calculate a composite score for that inventory. (This is explained in greater detail in Chapter 5, Development and Preparation of Data Files.) Students who did not meet these criteria for one or more of the scales were considered nonrespondents for those inventories. Table 12 indicates the criterion for each scale (i.e., the number of items that had to be missing before we set the remaining items to "missing,"), the frequency (how many students were missing that number of items and thus were not given composite scores for that inventory), and the percentage of the total sample (4,083 respondents) these students represented.

Table 12.
Nonrespondents for Self-Description Inventories
n=4,083

Self-Description Inventory	Criterion for Items Missing	Frequency	Percent of n	Percent Scorable Responses
Rosenberg Self-Esteem	2 or more	21	0.5	99.5
CES-Depression Scale	2 or more	13	0.3	99.7
Spielberger Trait Anxiety	3 or more	12	0.3	99.7
Levenson Locus of Control	1 or more	12	0.3	99.7

As Table 12 indicates, 99.5% of the 4,083 students who participated in the survey met our criterion for calculating composite scores for the Rosenberg Self-Esteem

Inventory; 99.7% for the other three inventories. Given that these four scales were included as the last items in the survey booklets, we are gratified that the data are so complete.

Responses to open-ended question

All three versions of the questionnaire included the open-ended question: *Are there things about your life at college you would like to tell us that we didn't ask about? If so, what are they?* This question was optional and appeared after the items developed especially for this study and before the self-description inventories. Table 13 indicates the number and percentage of students in each sample group who chose to write responses to that question.

Table 13.
Respondents to Open-Ended Question

Sample Group	Total in Sample	Open-Ended Responses	Percent
Student-Athletes	2,925	1,265	43
Extracurricular Students	823	398	48
Comparison Sample of Black Students	335	164	49
Total	4,083	1,827	45

The fact that nearly half of the respondents completed the open-ended question attests, we believe, to the seriousness with which students regarded the survey and to their trust in our ability to maintain confidentiality while sharing the overall content of their responses. Many of the students provided considerable detail about their experiences in college, and the rate and quality of the responses warrant special attention.

Rate of use of interview booklets

All participants in the study were given a self-administered questionnaire *unless* they requested an interview or the data collector offered one because of time constraints or observed difficulties. The rate of use of these forms is indicated in Table 14.

Table 14.
Rate of Use of Interview Booklets
By Sampling Category

Category	Number of Questionnaires	Number of Interviews	Percent of Respondents Interviewed
Football	888	29	3.2
Men's Basketball	395	14	3.4
Women's Basketball	374	11	2.9
Other Sports Male (grant)	390	4	1.0
Other Sports Female (grant)	388	3	0.8
Other Sports Mixed (nongrant)	429	2	0.5
Extracurricular Students	820	3	0.4
Comparison Sample of Black Students	333	2	0.6
Total	4,015	68	1.7

As Table 14 indicates, 98.3% of the participants completed the self-administered questionnaire.

Summary

AIR supervised data collection at 42 Division I institutions, working closely with on-campus liaisons designated by each institutional CEO. Preparations were carried out in November 1987 through February 1988; data were collected in March through July 1988. Data collectors monitored completion of the survey booklets and forms, with a ratio of one data collector for each group of four to five students.

For the 4,259 students in our primary sample, the participation rate was high for all categories except for the comparison sample of black students, which provided only a 54% response rate. A total of 3,210 students in the primary sample participated, and they were augmented by 873 alternate sample respondents. Response rates of 98% or more were obtained for all but three items on the questionnaire. Fewer than 1% of the participants failed to complete the self-description items in the last section of the questionnaire; nearly one half of the respondents (45%) wrote responses to an optional, open-ended question. An overwhelming majority of the respondents (98%) completed the self-administered questionnaire; the remainder elected to use an interview format.

5. Development and Preparation of Data Analysis Files

This chapter describes our data analysis files and the ways in which they were developed. First is a brief overview of the procedures used to code and keytape the responses to our questionnaires. Following are descriptions of three measures that were created for use in data analysis (socioeconomic status, composite measures for each of the psychological scales, and composite measures describing areas for personal growth and development), the variable "successfully-competitive intercollegiate athletic programs," and our weighting procedures. For Report No. 1: *Summary Results from the 1987-88 National Study of Intercollegiate Athletes,* all summaries of the data have been weighted to represent the population of *all* Division I student-athletes, not just those included in the sample.

Coding and Keytaping Procedures

All booklets and forms completed during data collection were sent to AIR–Palo Alto, where they were coded and reviewed. Several items in the booklets required the development of special coding categories or the use of special coding procedures. These items included

- sport—NCAA codes for 22 men's sports, 19 women's sports, and 21 mixed sports used
- college major—Higher Education General Information Survey[1] (HEGIS) and Classification of Instructional Programs[2] (CIP) codes used
- occupations—both Dictionary of Occupational Titles[3] and Department of Census[4] codes used
- marital status—single or married
- reason for choosing the institution—14 codes developed for these responses, as shown in Table 15 on the next page:

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[1] Center for Education Statistics. (1986). *Higher education general information survey.* Washington, DC: U.S. Department of Education.

[2] Center for Education Statistics. (1985). *Classification of instructional programs.* Washington, DC: Office of Educational Research and Improvement.

[3] U.S. Department of Labor. (1986). *Dictionary of occupational titles* (4th edition). Washington, DC: U.S. Government Printing Office.

[4] U.S. Bureau of the Census. (1982). *1980 census of population: Classified index of industries and occupations* (Final Edition). Washington, DC: U.S. Department of Commerce.

Table 15.
Factor Codes:
Reasons for Choosing an Institution

Code	Factor
01	Influence of family and friends (parents, brothers and sisters, other relatives)
02	Influence of other people not at the college (high school coaches, high school counselors, townspeople)
03	Recruiting (influence of players on team student would join, influence of coaches for team student would join, influence of alumni, offers made)
04	Characteristics of the academic programs (quality of the programs, reputation and prestige)
05	Characteristics of the athletics programs (quality of the programs, success records, level of competition, reputation and prestige)
06	Characteristics of the extracurricular programs (quality of the programs, opportunity to participate, reputation and prestige)
07	Reputation and prestige of the college (general reputation and prestige, e.g., a "good school" or "good education")
08	Finances (opportunity for financial aid or scholarship; cost of college, e.g., college was affordable)
09	Physical characteristics of the college (size of college; facilities; location, e.g., distance from home, in-state, weather, size of town)
10	Personal (no other choice, gaining independence, religious affiliation)
11	Other (were listed on separate sheet to review and ensure that no additional categories were needed)
12	Education (desire to get an education, to get a degree)
13	Don't know
14	No response

Except for the single open-ended question and the items above, all survey items were multiple–choice items and could be keytaped directly from the booklets. However, we examined and verified responses to all items prior to keytaping.

Editing procedures for booklet items

We established detailed guidelines for coders to use in editing the survey booklets. Copies of the guidelines were given to each coder. Among the guidelines were procedures for dealing with the following:

- Problems with skip logic—Our policy was to accept the answer to the filter question and set the subsequent contradictory responses to "missing." (Our policy and procedures are described in more detail in the next section.)

- Contradictory responses—Maximum ranges were established for items, e.g., 84 hours per week as maximum for time spent on specific activities, 25 for the number of classes missed per week. Responses that exceeded the maximum ranges were set to "missing."

- Comments to amplify responses—When respondents wrote in comments about an item, the booklet page was photocopied and examined separately to determine any patterns that might affect results.

- Omitted and uncodable items—Items that were omitted in error or could not be coded were coded as "missing" values.

- Responses with added ranges or fractions—Some respondents gave ranges, (e.g., 2-4 times per week), instead of specific numbers; the mid-point was used, e.g., 3). Some respondents wrote in fractions (e.g., 7.5 years and 4.5 hours), instead of round numbers, as directed. These numbers were rounded up if the preceding digit was odd (e.g., 7.5 was rounded to 8) and rounded down if the preceding digit was even (e.g., 4.5 to 4).

- Two or more responses for one item—Consistent procedures were developed for dichotomous items, factual items, attitudinal items, and self-description inventory items.

- Responses made between two sets of brackets—Marks were edited out and responses were marked within the brackets nearest to the mid-point.

- Lists of reasons for attending a particular institution—The reasons were coded in the order in which they were listed.

- More than one part-time job—If respondents listed more than one part-time job, only the first job mentioned was coded.

- Responses to time estimates—In completing the item about how they would spend a hypothetical extra 60 minutes per week, some students filled in 60 minutes for one line and left the rest of the lines blank. In these cases, the blank lines were assigned "0's". Responses that added up to more than 60 minutes were coded as "missing."

Coders were instructed to report any problems not covered by this list of guidelines to coding supervisors for resolution.

Resolution of problems with skip logic

The questionnaires included 14 questions that directed respondents to skip subsequent items on the basis of their responses. For students who did not follow the directions for these "filter" questions, we had two choices: (1) to accept the response to the filter question and ignore subsequent responses related to the question, or (2) to accept the responses and change the answer to the filter question. This item from the student–athlete version illustrates the skip-logic problem.

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51. When you were a high school student, were you recruited by colleges? (MARK ONE)

Yes.. [___] 1
IF YES, GO TO QUESTION 52

No... [___] 2
IF NO, GO TO QUESTION 57

If students answered *No* to Item 51 but completed Items 52–56, we could either consider the response to Item 51 as *Yes* and include the responses to 52–56, or accept the *Yes* response to Item 51 and ignore the responses to Items 52–56. Our decision was to accept the answer to the filter questions and set the subsequent responses to "missing." Our rationale was straightforward—we wanted to eliminate bias due to student characteristics that might have led some students to "miss" a filter item or not to attend to the directions associated with a filter item.

The number of students who gave responses in contradiction to the filter questions was small. Table 16 shows the eight items (of the total 14 items) drawing the most contradictory responses from each group in the sample and the percentage of the total responses for each item. For the six remaining filter questions, the number of contradictory responses was less than 2% for any of the three sample groups.

Table 16.
Contradictory Responses to Filter Questions

Item No.*	Description of Content	Student–Athlete *n*=2,925		Extracurricular *n*=823		Comparison Sample Black Students *n*=335	
17	Expect to be a professional?	580	20%	—		—	
37	Is roommate also an athlete?	158	5%	—		—	
	...also an extracurricular?			44	5%	—	
40	Live in school housing?	168	6%	—		—	
44	Know people to talk about problems?	106	4%	36	4%	18	5%
51	Recruited in high school?	89	3%	45	5%	21	6%
79	Work at paid job?	84	3%	58	7%	15	4%
92	Any injuries?	80	3%	16	2%	12	4%
96	Pressured to ignore injuries?	127	4%	18	2%	9	3%

* Item numbers refer to the student-athlete version of the questionnaire.

The most frequent contradictory response was to the question about the student-athlete's expectations for a professional career (*At the present time, do you expect to be a professional athlete*?). As Table 16 indicates, 20% of the student–athletes answered *No* but then answered the follow-up question (*How sure are you of becoming a professional athlete*?), perhaps because the follow-up question could be answered logically (e.g., *Almost certainly will not become a professional athlete*), even with a *No* response to the previous question.

We made one exception to our policy regarding filter questions, and that was in regard to this item: *At the present time, do you expect to get a degree?* The next item asked, *At the present time, in what year do you expect to get your degree?* If a respondent answered *No* to the first item but indicated a credible year for an expected degree (i.e., within five years), we accepted that response and changed the answer to the filter question to *Yes*.

Transcripts

We sent signed transcript-release forms to each institution in our sample and obtained copies of respondents' college transcripts. If the institutions had copies of high school transcripts available, we also obtained those. If they did not have copies, we made no special efforts to obtain them; we did not contact high schools directly.

High school transcripts. We received high school transcripts for students from 41 institutions. We coded the following information from these transcripts:

- grade-point averages (GPAs)—coding grade scales as either a four-point scale, five-point scale, other (e.g., percentile), or not available, and indicating whether the grades were obtained in or out of the United States. In some cases, GPAs were available only for courses completed by the end of the junior year. In these cases, we used the GPAs that were available.
- scores on American College Testing Assessment Program (ACT) and Scholastic Aptitude Test (SAT)—coding ACT scores, SAT scores, and PSAT scores—whichever were available

College transcripts. We collected college transcripts for respondents at all 42 institutions. We coded every item for every transcript for a sample of 12 institutions, randomly drawn from the 42, stratified by subdivision. We also coded transcript information from an additional nine institutions, selected at random in this manner, omitting transfer courses in these additional cases. For each transcript, we coded the following information:

- student ID number—the code number assigned when each student was selected for the study
- term length—semester, quarter, trimester, or other
- context—transfer or non-transfer
- academic status—probation, disqualification, or acceptable (by term)
- grade system—letter or numeric
- college major and minor—HEGIS and CIP codes
- GPA—overall grade-point average
- transfers—credits earned from other institutions, excluding advanced placement credits earned in high school
- degrees earned prior to entry (e.g., Associate in Arts from junior college)
- each course completed (including all transfer courses for transcripts from 12 institutions)—department, number, course name, CIP code, CIP name, credit attempted, credit earned

Quality-control checks

Booklets. When the coding was finished, a quality-control check involving every item in every booklet was carried out, problem areas were resolved in accordance with our written procedures, and a second quality-control check, also involving every item, was performed. The booklets were then keytaped; during keytaping, all items were entered twice and checked. Anomalies were reviewed by coding supervisors and resolved in consultation with senior project staff. A verification check of the keytaped values against the actual booklets was made for one percent of the booklets, and two staff members checked the keytaping for those booklets, item by item. After the check, the booklets were stored securely.

No booklets had to be rejected because of extreme inconsistencies among responses or evidence of unreliability. Logic-checks were carried out to detect problems with contradictory responses, e.g., students who reported having been recruited but indicated that zero colleges recruited them.

Transcripts. We conducted careful checks of the keytaping of GPAs and ACT and SAT scores from respondents' high school transcripts, again doing a 100% quality-control check. We have used the ACT and SAT scores from high school transcripts or other institutional records for our analysis, but we found inconsistencies in grade reporting on high school transcripts. Some schools reported grades in percentiles; others reported on four-, seven-, nine-, or ten-point scales; some had special, undocumented scales for honors classes. Because of the wide variations in reporting systems, we decided to use self–reported grades, not those on the high school transcripts. To test the accuracy of self-reports generally, we compared reported SAT scores for students from 40 institutions in the sample to the actual ACT scores on the students' high school transcripts. We obtained a correlation of .875, an indication that we could use the self-reported SAT scores with confidence.

For the college transcripts, we conducted quality-control checks on approximately 50% of the entries. Coding the courses was sometimes difficult; in many cases it was necessary to refer to institution catalogs to determine exactly which CIP codes were appropriate. To check inter-rater reliability, we gathered a sample of diverse transcripts from one institution, had each data entry person code it, compared the entries, and clarified areas of misunderstanding.

Measures Created for Use in Data Analysis

To facilitate data analysis, we created a socioeconomic (SES) measure, a composite of the psychological scales, and composites based on multiple-response items. The procedures used in creating each of these are described below.

SES measure

Our questionnaire included five items that focused on the student's socioeconomic status (SES):

- father's occupation
- mother's occupation
- father's education
- mother's education
- family's annual income

We began work with these items by first coding the occupations. We used the Census codes (three digits) to classify them because a set of numerical indexes has been developed to describe the prestige and socioeconomic status of occupations[5]. We used the father's occupation in all cases it was listed; in the absence of a father's occupation, we used the mother's occupation. We also used the DOT classification system to code the occupations in our database, in order to maximize the utility of public-use files that may be developed in the future.

Three occupations reported by respondents are not included in the Census classification system: Housewife, Military Officer, and Military Enlisted. For Housewife (8 cases), we used the mean prestige score for the entire sample as a proxy measure. For Military Enlisted (27 cases) and Military Officer (32 cases), we reviewed the 12 clusters of careers used in AIR's Project TALENT analysis of approximately 100,000 individuals[6]. We identified the clusters that included each of our uncoded occupations (Business Administration for Military Officer, and General Labor and Community and Public Service for Military Enlisted) and used the mean scores for these occupational clusters as the values for the military occupations.

The questionnaire items that asked about father's and mother's highest level of education included six choices, ranging from *Less than high school graduation* through *College program—master's degree, Ph.D., M.D., or other advanced professional degree.* The item that asked about parents' total income during the past year included 10 choices ranging from *Less than $5,000* to *$80,001 or more.* To form the composite SES measure, the values on each of the four variables (i.e., father's occupation, father's education, mother's education, and family's annual income) were standardized and averaged.

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[5] Stevens, G. & Cho, J. H. Sociologic indexes and the new 1980 census occupational classification scheme. *Social Science Research* (forthcoming).

[6] Flanagan, J.C. (1973). *The career data book: Results from Project TALENT's five-year follow-up study.* Palo Alto, CA: American Institutes for Research.

Composites based on self-description inventories

As described in Chapter 3, Instrument Development, our questionnaire included four self-description inventories (psychological scales). (See Appendix D.) The scoring procedure used with each scale is described below.

Rosenberg Self–Esteem Scale. We used a scoring procedure that made high scores on the scale agree with the name of the scale—in this case, high self-esteem. When comparing these numbers with published norms for the Rosenberg inventory, one should take care to ensure that the scores used are comparable. Scoring was done by assigning the following weights to Items 1, 2, 4, 6, and 7:

1 = Disagree Strongly
2 = Disagree More Than Agree
3 = Agree More Than Disagree
4 = Agree Strongly

The remaining items (3, 5, and 8–10) were reverse scored, i.e., 1 = Agree Strongly, 2 = Agree More Than Disagree, 3 = Disagree More Than Agree, and 4 = Disagree Strongly. The total score was calculated as the sum of these weights. If a respondent had one item missing, the composite was adjusted by 10/9, expanding the range to match that of ten-item respondents. If a respondent had two or more of the ten items missing, no composite score was calculated, and the respondent was assigned a missing value for the self-esteem composite.

Depression Scale from the Center for Epidemiological Studies. High scores once again indicate high depression. Items 1-3, 5-7, 9-11, 13-15, and 17-20 were scored by assigning the following weights:

0 = Rarely or None of the Time (Less Than 1 Day)
1 = Some or a Little of the Time (1–2 Days)
2 = Occasionally or a Moderate Amount of Time (3–4 Days)
3 = Most or All of the Time (5–7 Days)

Items 4, 8, 12, and 16 were reverse-scored, i.e., so that 3 = Rare or None of the Time, 2 = Some or a Little of the Time, 1 = Occasionally or a Moderate Amount of Time, and 0 = Most or All of the Time. The total score was calculated as the sum of the weights. If a respondent failed to answer one item, the composite was multiplied by 20/19. If a respondent failed to answer two items, the score was multiplied by 20/18. If a respondent failed to answer three or more of the 20 items, no composite score was calculated, and the respondent was assigned a missing value for the composite.

Spielberger Trait Anxiety Inventory (Form Y). High scores indicate high anxiety. Items 2, 4, 5, 8, 9, 11, 12, 15, 17, 18, and 20 were scored by assigning the following weights:

1 = Almost Never
2 = Sometimes
3 = Often
4 = Almost Always

Items 1, 3, 6, 7, 10, 13, 14, 16, and 19 were reverse scored, i.e., so that 1 = Almost Always, 2 = Often, 3 = Sometimes, and 4 = Almost Never. If a respondent failed to answer one item, the score was multiplied by 20/19; two items, by 20/18. If a respondent failed to answer three or more items, no composite score was calculated, and the respondent was assigned a missing value for this composite.

Levenson Locus of Control Scales. Three locus of control (LOC) scores were calculated from these 18 items (six items per score). High scores on Internal LOC scale (Items 1–6) indicate that the respondent attributes causes for his or her actions to internal, personal reasons. High scores on the Powerful Other LOC scale (Items 13-18) indicate that the respondent attributes such causes to powerful people outside his or her control. High scores on the Chance LOC scale (Items 7-12) indicate that the respondent attributes such causes to chance factors. All items were scored by assigning the following weights:

+3 = Strongly Agree
+2 = Agree
+1 = Slightly Agree
–1 = Slightly Disagree
–2 = Disagree
–3 = Strongly Disagree

If a respondent failed to answer one of the six items in any of the LOC scales, no composite scores were calculated for those scales, and "missing" values were assigned for Locus of Control. Final scores were calculated as the sum of the six items multiplied by 4/3 and added to 24. This correction was done to make the six-item scale sums equivalent to the sums of Levenson's original eight-item scales, with values ranging from 0 to 48 points.

Composites describing personal growth and development opportunities

The survey asked respondents to evaluate the ease or difficulty of doing certain things (e.g., *Do you feel it is easier or harder for you, as a college athlete,* [or *as an extracurricular student* or *as a black student*] *to do the following?)* We used a factor analysis to combine the items that were related to personal growth and development opportunities. Specifically, we used factor analysis with a varimax rotation (which makes loading either 0 or 1), basing the analysis on the data for student-athletes (the largest group) and standardizing the data first by race and gender.

In developing composites for these items, we determined the percentage of variation that can be explained by each factor. The results are shown in Table 17.

Table 17.
Factors for Personal Growth and Development Opportunities

Factor	Loading	Item Number	Item Content
Leadership/personal development	.60	50-5	Take on leadership responsibility
	.68	50-6	Exercise self control/restraint
	.72	50-7	Set and achieve personal goals
	.63	50-9	Learn from your mistakes
	.56	50-11	Develop new abilities/skills
	.61	50-12	Take responsibility for others
	.54	50-13	Learn about yourself
Social/Friendship	.74	50-16	Be liked by others for just being yourself
	.74	50-17	Talk about personal problems with others
	.71	50-18	Have close friends who will probably be friends forever
Assertiveness	.72	50-1	Get dates
	.75	50-2	Get to know other students
	.70	50-3	Speak your mind
Opportunities/Recognition	.60	50-10	Earn praise and recognition for your abilities
	.67	50-14	Travel to new places
	.57	50-15	Get to know people of different races
	.63	50-20	Get special treatment from local townspeople and merchants

Note: Three sub-questions for Item 50 were not used because they loaded equally on more than one of the factors, even after varimax rotation:

50-4	Make your own decisions
50-8	Show others how talented you are
50-19	Be treated by parents and family as an adult

In our analyses, we used both these composite measures and the individual items that comprised the composites.

Successfully-competitive intercollegiate athletics programs

In one of its four questions, the Presidents' Commission asked us to examine how recruitment activities differ, depending upon the intensity of an institution's athletic program. We know of no direct measure of program intensity. After some research, we decided that the measure that best approximates intensity is the Sagarin computer rating—a measure based on a team's win-loss record, taking the strength of opponents into account. We felt that "successful competitiveness" rather than "program intensity" better described what the ratings measure.

Sagarin publishes the ratings for all NCAA Division I basketball and football teams. In addition to taking into account the win-loss record and the strength of the competition, the rating also has "a diminishing returns principle built into the system that prevents a team from building up its rating by running up large margins of victory against weak teams. Instead, it rewards teams that do well against good opponents."[7] The exact formula used to derive the ratings is the property of Jeff Sagarin. The final Sagarin computer football ratings are published in *USA Today* each January 3, and the final basketball ratings are published the week after the NCAA men's basketball tournament is completed.

An unweighted average was constructed for each of the 42 programs in our sample, using the final basketball and football ratings for 1987-88, the 1985-86 final ratings for football, and the 1984-85 final ratings for basketball. If a team was above the median of the average, it was labeled "more successfully-competitive." If a team was below the median of the average, it was labeled "less successfully-competitive."

Weighting

Summaries of data for this study, including statistical significance tests, have been computed to represent the population of *all* Division I student-athletes, not just those included in the sample. Moreover, these summaries and tests have been computed so as to eliminate any possible confounding due to different distributions of key variables by race, gender, and institution. For example, we can be confident that a finding (e.g., that there were more dissatisfied students in one category than in another) is *not* due to the fact that one of the categories had relatively more men or or more women, more blacks or more nonblacks at one group or institutions than another.

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[7] Sagarin, J. (1986, January 3). Final college football computer ratings. *USA Today*, p. 7c.

Institution weights

We assigned the 291 institutions in NCAA Division I to 33 strata and selected 42 institutions within the strata (two from each of nine strata and one from each of 24 strata). (See Institutional Sample in Chapter 2, Sample Design.) To represent all Division I institutions, we computed an institution weight for each selected institution to capture the number of institutions in the population it represented. For example, for a stratum with ten institutions, if two were selected, each represented five in the stratum; each was given an institution weight of five.

The strata were conferences or clusters of independent institutions or conferences. In Division I–A, for example, selections were made from three separate strata of independents (a population of 27 institutions). In Division I–AA and I–AAA, the 22 institutions not included in selected conferences were represented by those in corresponding Division I–AA and Division I–AAA conferences.

Student weights

Carrying the concept of representation to the student level, we assigned a weight to each selected and responding student to capture the number of students in the population he or she represented. (Adjustment for nonresponse is discussed in the next section.) For each student, this weight was the ratio of the number of students on the "squad list" to the number of respondents, multiplied by the institution weight. Using this weight, we could, for example, estimate the number of Division I football players in the country from the sample by adding the (student) weights of the football players in the sample.

The student weight, or number of students at an institution represented by each respondent, was computed as the ratio of the "squad list" size to the respondent count for the particular category at the institution. Thus, because we selected the same number of football players from each football squad, no matter how large, a respondent selected from a squad of 150 football players would be given twice the weight of a respondent selected from a squad of 75 football players, if their institutions had already been assigned the same weights. Thus, the weight given an institution is proportional to its squad list sizes. For football and basketball, squad lists did *not* vary dramatically in size across institutions, so in descriptions of football and basketball players, all respondents contribute about the same to the overall results.

The number of students on squad lists of sports other than football and basketball and the numbers of students on extracurricular "squad lists" *did* vary considerably among institutions. This presents a potential problem for analysis, known as *Simpson's paradox*[8]: without appropriate adjustments, the comparisons among groups of students will be confounded by the relative size of the groups. To prevent this problem, each of our comparisons specifies a "focal group," which is used as the referent group in readjusting the relative sizes of the groups for comparison purposes. A focal group is just that group that is of most interest for a particular comparison. For example, to eliminate this source of confounding in a comparison of football and basketball players to student-athletes in other sports, we would adjust the weights for the students in other sports so that, at each institution, the sum of the respondents' weights in these categories was the same as the sum of the respondents' weights in the football and basketball categories. This would allow us to compare the outcomes for football and basketball players with those of student-athletes in other sports without worry of any confounding due to Simpson's paradox.

Control for race, institution, and gender variation

The results presented in our report of major findings (Report No. 1) consist of estimates of response distributions and means, and estimates of the sizes of the effects (i.e., *r*-values indicating the strengths and association between group and dependent variables). Each of these results might be different for men and for women, as they might differ among institutions. In order to eliminate the effects of these "influencing factors" for Report No. 1, we computed derived weights for every comparison that controlled for the effects of race, gender, and institution.

The tables and figures in Report No. 1 pertain primarily to a focal group. Most frequently, that focal group is *football and basketball players*. Data are weighted to provide estimates for the entire Division I population of football and basketball players, not just those in the sample. The tables and figures also include comparison groups, e.g., other student–athletes and other extracurricular students. Data for the comparison groups are weighted so that they represent a group of students with the same race, gender, and institution distribution as the students in the focal group. Because we adjusted the weights of the comparison groups, each category of comparison-group students contributes just as much to the aggregate numbers for the comparison group as that category for focal-group students contributes to the aggregate numbers for the focal group.

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[8] Simpson, E. H. (1951). The interpretation of interaction in contingency tables. *Journal of the Royal Statistical Society*, Ser. B, 13(2), pp. 238-241.

Estimates of group differences

To test the statistical significance of differences between groups, we carried out weighted Student's *t*-tests. Although we had theoretical reasons for believing the test to be appropriate, we ran several Monte Carlo tests to verify that the procedure would perform well. (A Monte Carlo test consists of performing operations on many replications of data from a known model with random variation.) The results of these tests confirmed our use of the weighted *t*-test.

We developed our own procedures to compute accurate weighted tests, based on a computed *effective* sample size for each group. It can easily be shown that the effective sample size for a weighted sample is equal to the ratio of the square of the sum of weights to the sum of the square of the weights[9]. To verify that the weighted student's *t*-statistic has not only the appropriate scale (which can be shown theoretically) but also the appropriate shape, we carried out preliminary Monte Carlo verification of significance levels for the weighted *t*-test.

The results of our set of these Monte Carlo tests are shown in Table 18. Each replicate was of a sample of 100 random normal deviates, divided into two groups. Tests were carried out for three sets of weights.

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[9] Kish, L. (1965). *Survey sampling*. New York: Wiley & Sons. (p. 427)

Table. 18.
Estimates of Group Differences: Monte Carlo Tests

Number	Replicates	Weights	Weight-Grouping Relation	Weight-Outcome Relation
1.	500	a	c	Independent
2.	345	b	Independent	d
3.	200	b	Independent	e

[a] The three sets of weights in Run #1 were:

1. w = 1 for cases 1–100
2. w = 1 for cases 1–50, = 2 for cases 51–75, = 0 otherwise
3. w = 1 for cases 1–50, = 10 for cases 51–55, = 0 otherwise

[b] The three sets of weights in Runs #2 and #3 were:

1. w = 1 for cases 1–100
2. w = 1 for cases 1–50, = 2.5 for cases 51–70, = 0 otherwise
3. w = for cases 1–50, = 5 for cases 51–60, = 0 otherwise

[c] The grouping of cases 1–100 in Run #1 was:

1–50:	00001	00001	00001	00001	00001	00001	00001	00001	00001
51–100:	11110	11110	11110	11110	11110	11110	11110	11110	11110

This ensured that weights were correlated with group membership in cases in which they varied. In Runs #2 and #3, the grouping was even-odd, which ensured independence of weights and grouping.

[d] In Run #2, 0.5 was added to the random normal deviate for cases 1–50 and subtracted for cases 51–100.

[e] In Run #3, 1.0 was added to the random normal deviate for cases 1–50 and subtracted for cases 51–100.

The addition of a constant to the random normal deviates (notes d and e above) was carried out to create correlations between weights and dependent variables in *t*-tests without creating group differences. The results in those cases were a distribution of *t*-statistics with a reduced variance. The *t*'s in Runs #2 and #3 were adjusted for this design effect. (See the section on Design Effects below.) The values for the weighted analyses should, in each case, be compared with the unweighted (i.e., equal-weighted) analyses. The critical questions concern the variance of the *t*-statistic, its one-tail .05 levels and .01 levels, and the percentage of cases that would be significant based on the standard .05 level of 1.64 and .01 level of 2.33. The results, in Table 19, average the positive and negative .05-levels and .01-levels from each sample.

Table 19.
Distribution of the Weighted t-Statistic

Run	Weighting	Variance of t	one-tailed .05-level	one-tailed .01-level	% $\|t\|>1.64$	% $\|t\|>2.33$
1.	1 (1:1)	1.046	1.70	2.26	11.2%	2.0%
	2 (2:1)	1.050	1.69	2.32	11.4%	1.6%
	3 (10:1)	1.019	1.67	2.32	10.0%	1.6%
2.	1 (1:1)	.900	1.47	2.33	7.8%	1.7%
	2 (2.5:1)	.919	1.57	1.95	9.3%	1.2%
	3 (5:1)	.832	1.47	2.07	7.5%	1.2%
3.	1 (1:1)	.994	1.69	2.32	11.0%	2.5%
	2 (2.5:1)	.951	1.59	2.25	8.5%	2.5%
	3 (5:1)	.804	1.50	2.13	6.5%	1.0%

The results support the use of the weighted *t*-test:

1. The variance of the *t*-statistic does not increase significantly with variation in weights.
2. The .05 and .01 levels for the statistic do not increase significantly with the variation in weights.
3. Correspondingly, the percentages that are beyond the standard .05 and .01 levels do not increase significantly with the variation in weights. These results hold even in the context of correlations between weights and the grouping and between weights and the dependent variable.

A much more extensive Monte Carlo is required for the determination of exact significance levels. However, for the application at hand, acting on the assumption that the weighted *t*-statistic behaves the same as the unweighted *t*-statistic (i.e., focusing attention only on mean differences that translate into *t*-values of greater than 2) will not distort the conclusions to be reached.

We have been comparing the *t*-statistic to the *z*-distribution, which is appropriate for this study because all of our comparisons have large effective sample sizes. In the Monte Carlo study described here, however, the effective sample sizes for Run #1, line 3 in Table 19, are only 18 and 6 for the two groups. Therefore, the Monte Carlo results are actually much less stable than the results of actual analyses for the national study.

Estimates of effect sizes

To provide information about the size of the effects in our data, in terms of a common metric, we have reported correlation coefficients (*r*) in Report No. 1. An *r* of 0 corresponds to the null hypothesis: that no significant difference exists between groups on some dependent measure. As *r* values increase, the size of the effects increases. For most of the results in which the dependent measure is truly continuous (e.g., years), or is a true ordinal measure (e.g., a five-point scale ranging from *Much Easier* to *Much Harder*), our correlation coefficient is a Point Biserial Correlation. For cases in which the dependent measure is dichotomous (e.g., *Yes* or *No*), our correlation coefficient is equivalent to a Phi statistic. Statistical significance based on a two-tailed test is indicated by an asterisk (*).

Nonresponse Adjustment

We felt that the response rate among the comparison sample of black students (54%) justified an investigation of possible nonresponse bias. Because at the time Report No. 1 was being prepared we had not collected data to adjust for such bias, the analyses in Report No. 1 do not include the comparison sample of black students. We are now in the process of conducting a follow-up study of all primary nonrespondents to determine the possible effects of nonresponse on the conclusions to be drawn from the survey.

When data are available, we will compare the nonrespondents' characteristics (i.e., gender, race, class, form of athletic or other activity, and grade-point average) with the participating students' characteristics. When that study is complete, weights will be reassigned to allow the sample to represent the entire population, including nonrespondents.

Early and Late Respondents

To predict the potential effects of nonresponse, we conducted a test to determine whether there were significant differences between early and late respondents to the national study. The goal was to be able to make valid assumptions about the differences between current respondents and nonrespondents, and, with this goal achieved, to adjust our variable-weights accordingly. We hypothesized that late respondents would be somewhat similar to nonrespondents.

For purposes of this test, a *late respondent* was defined as any student who

- participated in the study more than two weeks after the first questionnaires were completed at the institution and
- was the only student who participated in the study at that institution on that date

Participation in the study includes either completing the self-administered questionnaire or being interviewed. If two or more "late" students participated on the same date, they were not coded as late respondents because, in many cases, small groups of students were scheduled at later dates to accommodate their plans to participate in a school-sponsored event, e.g., a concert tour or a team road trip. Because such students would have participated on time if our schedule had not conflicted with the campus events-schedule, we did not consider these students similar to nonrespondents. After applying this definition of late respondent, we classified about 142 students in this category.

The rates of late participation varied substantially among the 42 institutions. We decided to "pool" the differences between late and early respondents within each institution before averaging across institutions. Furthermore, we calculated late and early differences separately for the eight sub-groups in the sample (e.g., football, men's basketball).

Measures of primary interest

Although we performed analyses on 12 dependent variables, the six measures listed below were of particular interest with respect to late and early differences. (Item numbers refer to the student-athlete version of the questionnaire).

1. satisfaction with academic performance (Item 30)
2. self-reported SAT score, only because the actual score was unavailable at the time of the comparison (Item 109)
3. mean of item on academic difficulties (Item 24)
4. mean of item on personal growth and development opportunities (Item 50)
5. amount of money per month after expenses (Item 85)
6. composite score for self–esteem

For each group (i.e., early versus late) and each measure of interest (calculated within institution, on unweighted data), the mean of late respondents was subtracted from the mean of early respondents. Those differences were then averaged across institutions and the resulting mean was compared to zero (using t-tests). Institutions that had no late respondents in a particular group were dropped. Consequently, each of the resulting *t*-statistics has less than 41 degrees of freedom.

The hypothesis was that late respondents would be less able to cope, i.e., would report lower satisfaction with academic performance, lower SAT scores, and so on, than the early respondents. Table 20 presents *t*-statistics for the early and late comparisons for the eight groups for each of the six measures of interest. In the table, a positive sign indicates support (i.e., effect in the favorable direction) for the hypothesis that late respondents are less able to cope than the early respondents. The last row of the table (All Groups) presents *t*-statistics for the six measures of interest based on analyses that aggregated effects across the eight groups.

Table 20.
t-Tests on Late vs. Early Respondents

	Satisf. w/ Acad Ach.	Self-Report SAT	Mean: Diff. w/Courses	Mean: Easier/Harder	Money Aft. Exp.	Self-Esteem
Football	-0.28	+0.97	+0.77	-2.35	+0.83	+1.92
Men's Basketball	+2.16	+1.21	+1.49	+2.12	+0.36	-0.99
Women's Basketball	+0.45	+0.11	-0.33	+0.47	+1.04	+0.98
Other Sports Male	+0.39	+0.08	+0.51	+0.58	+0.50	-0.25
Other Sports Female	+0.17	+0.56	+1.53	+1.48	+0.46	-2.26
Other Sports Mixed	+1.18	-0.17	+0.11	+1.17	-0.22	+0.30
Extracurricular Students	+2.51	+2.38	+0.98	+0.50	+0.02	+0.83
Comparison Sample of Black Students	-0.65	+0.97	+0.43	+1.05	+0.97	-1.57
All Groups	+1.91	+1.51	+1.91	+2.25	+1.20	-0.75

Table 20 indicates some support for the hypothesis that the late respondents are less able to cope than the early respondents, although the effects are not strong. In a separate analysis, we conducted cluster analyses on a given set of items (e.g., high dissatisfaction with academic performance, high score on the depression scale) to identify any respondents with special problems. The analyses produced no evidence that late respondents tended to be students with severe problems. On the basis of these results, we decided not to weight the late respondents differentially to represent nonrespondents.

Design Effects

The participants in this study were not a simple random sample of students at Division I institutions. They were, in fact, approximately 100 randomly selected students (in particular categories) at 42 randomly selected institutions (one or two in each of 33 strata). The fact that the study clustered at 42 institutions instead of being spread across all 291 NCAA Division I institutions dramatically reduced the costs of data collection while only slightly reducing the power of the study to identify significant factors in the college experiences of student-athletes. The loss of power due to the clustering of sample students in only 42 institutions can vary from one measure to the next and depends on the relative sizes of within-institution variation and between-institution variation on the measure in question.

The quantitative effect of the loss of statistical power is an increase in the real variance of computed statistical estimates, so that the simple formulas for the variance of the statistics underestimate the real variance. The ratio of the real variance to the formula variance can be computed from an analysis of variance; test statistics such as Student's t should be reduced by the square root of that ratio.

Definition of design effect

A *design effect* is a kind of sampling bias formally defined as "the sampling error variance actually obtained using a survey design divided by the sampling error variance that would have been obtained had the survey used a simple random sample."[10] Because the design for the national study employed cluster samples of students within 42 institutions, we needed to see if important dependent measures varied substantially across institutions (which would indicate the presence of design effects), and then to adjust our statistical tests accordingly. The statistical adjustments can take several forms, e.g., decreasing a test statistic or decreasing the "effective" sample n of a test, relative to the size of the design effect calculated on the dependent measure of interest. Because we stratified on conference, the loss of power in this case is only associated with the clustering of students at one or two institutions in each conference.

ANOVA analysis

To explore the possible design effects in our data, we carried out analyses of variance (ANOVAs) on a variety of important measures, using institution (two or three levels) as an independent variable nested within conference. To carry out the analysis, we created fictitious combined pairs of conferences for Division I-AA and I-AAA, to produce a conservative estimate of the design effect. (See Table 21 below for a list of variables and the results). These analyses were done on both weighted and unweighted data, using student-athletes only and partialing out gender, race, and football-basketball player/other-athlete variance.

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[10] Staff. (1984). *Technical Report: 1984 Carnegie Foundation National Surveys of Higher Education.* Princeton, NJ: Opinion Research Corporation.

The design effect factors are divided into *t*-statistics. Thus, in Report No. 1, we used a general significance threshold of 2.5 for *t*-tests, to compensate for design effect factors of up to 1.3 (2.5 = 1.3 x 1.96, and 1.96 is the two-tailed .05 level of significance).

Table 21.
Design Effect Factors

Item*	Variable	Design Effect Factor
44	Know people you can talk to about personal problems	1.00
24 (mean)	Find courses difficult, repeat, on probation, etc.	1.05
** (mean)	Have high self-esteem (scale composite)	1.05
85	Have how much money after expenses	1.09
84	Borrow how much money for educational expenses	1.13
50 (mean)	Personal development easier because athlete	1.20
30	Feel satisfaction with academic performance	1.23
54	Feel intense recruitment pressure	1.31
92	Had injuries this school year	1.31
17	Expect to be a professional athlete	1.35
66	Spend how many hours in season in main sport	1.46

* Item numbers refer to the student-athlete version of the questionnaire.

Summary

Most of the items on the study questionnaire were keytaped directly from the survey booklet; nine required special coding procedures prior to keytaping. Information from both high school and college transcripts was also coded and carefully checked. Quality-control checks were carried out on every booklet, on GPAs and ACT and SAT scores from high school transcripts, and on approximately 50% of the entries for college transcripts.

We created composite measures for use in our data analysis: a SES measure, six scores on the psychological (self-description) scales, and four measures describing personal growth and development opportunities. All analyses presented in Report No. 1: *Summary Results from the National Study of Intercollegiate Athletes* controlled for race, gender, and institution, to eliminate any confounding of the results due to these factors.

An institution weight for each institution was derived in the sample so that it represented others in its stratum. Similarly, weights were derived for students so that they represented others in the same category at the institution. In our report of major findings, each display of data involves a focal group, usually football and basketball players, and includes comparison groups, e.g., other student–athletes and other extracurricular students. Comparison groups are weighted to represent groups with the same race and gender distribution as those in the focal group. The analyses in Report No. 1 use weighted data. Thus they present similarities and differences likely to be found in the population of *all* Division I student-athletes.

Appendix A

Student-Athlete Questionnaire

National Study of Intercollegiate Athletes

American Institutes
for Research

Q

☐☐☐☐☐☐☐☐

STUDY OF INTERCOLLEGIATE ATHLETICS

Student-Athlete Questionnaire

**P.O. Box 1113
Palo Alto, CA 94302
(415) 493-3550**

(SAQ) Student-Athlete Questionnaire

We appreciate your participation in this nationwide study. Through your efforts, valuable information will be collected and used to help improve college programs.

The information you provide during this session is confidential--what you say will never be reported or connected with your name, this school, or anyone at this school.

First, read through the instructions carefully. If you have any question or problem, please call on a data collector for help.

Instructions:

1. To answer each item, put an "X" in the bracketed space to the right. For some items, you write in answers on the lines provided. Sometimes, when you write in an answer, you will also need to mark the bracketed space to the right.
2. After answering an item "yes" or "no," you may be told to GO to a specific item. Please read carefully and follow these directions.
3. If you have any questions about an item or about what you should do after you answer an item, please call on one of the data collectors to help immediately. These persons are here to help you.

When answering, please remember these things:

1. You are the subject of this questionnaire. We want to know your feelings and experiences, not those of others that you may have heard about.
2. In this questionnaire we refer to your "main intercollegiate sport." If you participate in more than one sport, please choose as your main sport the one for which you receive an athletic grant or athletic scholarship. If you do not receive a grant or scholarship and you participate in more than one intercollegiate sport, choose the sport in which you spend the greatest amount of time.
3. In this questionnaire also, we refer to your "coach." Please understand when we say coach, we mean the coach you spend the most time with and take direction from--whether or not he or she is your head coach.

Now, please begin. We hope you find this an enjoyable experience.

Items 1 to 6 refer to general information about your college experience.

1. In terms of all your earned credits, how are you classified at this school? (MARK ONE)

Freshman	☐ 1
Sophomore	☐ 2
Junior	☐ 3
Senior	☐ 4
Graduate student	☐ 5
Don't know	☐ 88

2. What is your main intercollegiate sport here? (WRITE IN) ______________________

3. In terms of your playing time or position on the roster, how are you classified in this sport? (MARK ONE)

First team (e.g., starter, traveling team member)	☐ 1
Second team	☐ 2
Third team	☐ 3
Redshirt	☐ 4
Not eligible	☐ 5
Other (WRITE IN) ______________________	☐ 6
Don't know	☐ 88

4. Do you participate in any other intercollegiate sports? (MARK ONE)

Yes	☐ 1
IF YES, GO TO QUESTION 5	
No	☐ 2
IF NO, GO TO QUESTION 6	

5. What other intercollegiate sports do you play in addition to your main sport?

(WRITE IN) ______________________

(WRITE IN) ______________________

6. How does the coach of your main sport feel about your participation in other intercollegiate sports?

Demands participation in other sports ☐ 1
Encourages participation in other sports ☐ 2
Discourages participation in other sports ☐ 3
Forbids participation in other sports ☐ 4
Don't know ☐ 88

Items 7 to 10 refer to when you enrolled at this school

7. When you enrolled at this school, how important was it to you to get a degree? (MARK ONE)

Of greatest importance ☐ 1
Important ☐ 2
Somewhat important ☐ 3
Not important at all ☐ 4

8. When you enrolled at this school, in what major or field did you expect your degree?

MAJOR (WRITE IN) ____________________

No specific major ☐ 87

9. When you enrolled at this school, did you expect to be a professional athlete? (MARK ONE)

Yes ☐ 1
No ☐ 2

10. When you enrolled at this school, what type of job did you expect to be working at in later life--at age 40?

JOB (WRITE IN) ____________________

No specific job ☐ 87

Items 11 to 20 refer to the present time.

11. At the present time, how important is it to you to get a degree? (MARK ONE)

Of greatest importance ☐ 1
Important ☐ 2
Somewhat important ☐ 3
Not important at all ☐ 4

12. At the present time, do you expect to get
a degree? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 13

No..[__]2
IF NO, GO TO QUESTION 17

13. At the present time, in what year do you expect
to get your degree?...1 9 _ _

14. At the present time, in what major or field do you
expect your degree?

MAJOR(WRITE IN) ____

No specific major...[__]87
IF NO, GO TO QUESTION 16

15. At the present time, how satisfied are you with this
choice of major? (MARK ONE)

Totally satisfied...[__]1
More satisfied than dissatisfied..[__]2
More dissatisfied than satisfied..[__]3
Not satisfied at all...[__]4

16. At the present time, what are your present thoughts
about going on to graduate or professional school?
(MARK ONE)

Almost certainly will go on...[__]1
Probably will go on...[__]2
Possibly will go on...[__]3
Almost certainly will not go on...[__]4

No idea...[__]88

17. At the present time, do you expect to be a professional
athlete? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 18

No..[__]2
IF NO, GO TO QUESTION 19

18. At the present time, how sure are you of becoming a professional athlete? (MARK ONE)

Almost certainly will become a professional athlete................[__]1
Probably will become a professional athlete........................[__]2
Possibly will become a professional athlete........................[__]3
Almost certainly will not become a professional athlete............[__]4

19. At the present time, what type of job do you expect to be working at in later life--at age 40?

JOB (WRITE IN) ____

No specific job...[__]87

20. How important has each of the following persons been in influencing your education and career plans? (RATE EACH ITEM)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Spouse..................................	[__]1	[__]2	[__]3	[__]4
(If not married, check here ☐)				
Parents and other family................	[__]1	[__]2	[__]3	[__]4
Alumni of this school (not family)......	[__]1	[__]2	[__]3	[__]4
Other friends...........................	[__]1	[__]2	[__]3	[__]4
Coaches at this school..................	[__]1	[__]2	[__]3	[__]4
Athletic advisors.......................	[__]1	[__]2	[__]3	[__]4
Other academic advisors at this school..	[__]1	[__]2	[__]3	[__]4
Teachers at this school.................	[__]1	[__]2	[__]3	[__]4
High school coaches.....................	[__]1	[__]2	[__]3	[__]4
High school teachers....................	[__]1	[__]2	[__]3	[__]4

Anyone else? (If so, please describe.)

____[__]5
(Other person)

Item 21 refers to the future.

21. Thinking about the future, how important is each of the following to you? (RATE EACH ITEM)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Career success	☐1	☐2	☐3	☐4
Job security	☐1	☐2	☐3	☐4
Happiness	☐1	☐2	☐3	☐4
A good marriage	☐1	☐2	☐3	☐4
Raising children	☐1	☐2	☐3	☐4
Financial success	☐1	☐2	☐3	☐4
Good retirement	☐1	☐2	☐3	☐4
A long life	☐1	☐2	☐3	☐4
Good health	☐1	☐2	☐3	☐4
Making new friendships	☐1	☐2	☐3	☐4
Religious or spiritual fulfillment	☐1	☐2	☐3	☐4
Intellectual development	☐1	☐2	☐3	☐4

Items 22 to 31 refer to your educational experiences at this school.

22. Since first entering college, have you dropped out for any period of time? (MARK ONE)

No .... ☐1
Yes, for less than one year .... ☐2
Yes, for one academic year .... ☐3
Yes, for more than one year .... ☐4

23. As a Freshman, did you: (MARK ONE)

Practice AND compete in intercollegiate sports at the varsity level? .... ☐1

Practice AND compete in intercollegiate sports on a Freshman team? .... ☐2

Practice intercollegiate sports ONLY--e.g., as a redshirt? .... ☐3

Sit out--NO intercollegiate competition or practice? .... ☐4

24. At this school, have you: (MARK ONE FOR EACH)

	Yes	No
Found many courses too difficult?	[__]1	[__]2
Repeated one or more courses?	[__]1	[__]2
Received "incomplete" grades for courses in one or more terms?	[__]1	[__]2
Attended one or more summer sessions?	[__]1	[__]2
Taken one or more intersession courses (e.g., courses between semesters)?	[__]1	[__]2
Ever been on academic probation?	[__]1	[__]2

25. Have you attended any of the following at this school? (MARK ONE FOR EACH)

	Yes	No
An orientation program for college studies and college life	[__]1	[__]2
Special courses on taking notes, listening in class, preparing assignments	[__]1	[__]2
Special courses to review basic skills--such as reading, writing, mathematics	[__]1	[__]2

26. How satisfied are you with the courses you are taking this term? (MARK ONE)

Totally satisfied	[__]1
More satisfied than dissatisfied	[__]2
More dissatisfied than satisfied	[__]3
Not satisfied at all	[__]4

27. How satisfied are you with your performance in these courses? (MARK ONE)

Totally satisfied	[__]1
More satisfied than dissatisfied	[__]2
More dissatisfied than satisfied	[__]3
Not satisfied at all	[__]4

28. Are you usually in courses (or sections of courses) with many other athletes? (MARK ONE)

Yes	[__]1
No	[__]2
Don't know	[__]88

29. Do you feel it is easier or harder for you, as a college athlete, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Be regarded as a serious student by professors	☐1	☐2	☐3	☐4	☐5
Get help from professors	☐1	☐2	☐3	☐4	☐5
Reschedule exams or due dates for assignments	☐1	☐2	☐3	☐4	☐5
Keep up with coursework	☐1	☐2	☐3	☐4	☐5
Get help from teaching assistants	☐1	☐2	☐3	☐4	☐5
Choose the courses you want to take	☐1	☐2	☐3	☐4	☐5
Get help from tutors	☐1	☐2	☐3	☐4	☐5
Make academics your top priority	☐1	☐2	☐3	☐4	☐5
Get the grades you are capable of	☐1	☐2	☐3	☐4	☐5
Talk to academic counselors about your program	☐1	☐2	☐3	☐4	☐5
Prepare for classes	☐1	☐2	☐3	☐4	☐5
Study for exams	☐1	☐2	☐3	☐4	☐5
Get feedback on how well you are doing in courses	☐1	☐2	☐3	☐4	☐5

30. How satisfied are you with your overall academic performance at this school? (MARK ONE)

Totally satisfied	☐1
More satisfied than dissatisfied	☐2
More dissatisfied than satisfied	☐3
Not satisfied at all	☐4

31. How satisfied are you with your overall performance as an athlete at this school? (MARK ONE)

Totally satisfied	☐1
More satisfied than dissatisfied	☐2
More dissatisfied than satisfied	☐3
Not satisfied at all	☐4

Items 32 to 50 refer to your personal/interpersonal experiences at this school.

32. About how often have you experienced the following since you have been at this school? (MARK ONE FOR EACH)

	Frequently (More Than 10 Times)	Occasionally (About 6 to 10 Times)	Rarely (About 1 to 5 Times)	Never
A feeling that you lack control over your life........	☐1	☐2	☐3	☐4
A sense you are different from other students...... ...	☐1	☐2	☐3	☐4
Racial isolation.............	☐1	☐2	☐3	☐4
Physical abuse...............	☐1	☐2	☐3	☐4
Mental or emotional abuse.......................	☐1	☐2	☐3	☐4
Racial discrimination.........	☐1	☐2	☐3	☐4
Isolation from other students....................	☐1	☐2	☐3	☐4
Sexual discrimination.........	☐1	☐2	☐3	☐4

33. On or off this campus, do you belong to a(n): (MARK ONE FOR EACH)

	Yes	No
Social fraternity or sorority?.........................	☐1	☐2
Religious club or fellowship?..........................	☐1	☐2
Interest or hobby club (e.g., chess club)?.............	☐1	☐2
Political group?.......................................	☐1	☐2
Service organization (e.g., YMCA volunteer)?...........	☐1	☐2
Other group? (WRITE IN) ________________________________		☐3

34. With whom do you spend most of your free time on campus? (MARK ONE)

Teammates.. ☐1
Other student-athletes....................................... ☐2
Other students (not in athletics)............................ ☐3

Other people (WRITE IN) ______________________________________ ☐4
No one, prefer to be alone................................... ☐5

35. When you are with others during your free time, which of the following things do you usually talk about? (MARK ONE FOR EACH)

	Yes	No
Classes	☐1	☐2
Grades	☐1	☐2
Sports in general	☐1	☐2
Politics	☐1	☐2
Current events	☐1	☐2
Other friends	☐1	☐2
Music	☐1	☐2
Future plans	☐1	☐2
Family	☐1	☐2
Coaches	☐1	☐2
Your sport	☐1	☐2
Other? (WRITE IN) ____________		☐3

36. Do you live with one or more roommates? (MARK ONE)

Yes ☐1
IF YES, GO TO QUESTION 37

No ☐2
IF NO, GO TO QUESTION 39

37. Are one or more of your roommates teammates or other student-athletes? (MARK ONE)

Yes ☐1
IF YES, GO TO QUESTION 38

No ☐2
IF NO, GO TO QUESTION 39

38. Are you required to live with teammates or other student-athletes? (MARK ONE)

Yes ☐1
No ☐2

39. Are you required to eat most meals with teammates or other student-athletes? (MARK ONE)

Yes ☐1
No ☐2

40. Do you live in housing owned or run by the school? (MARK ONE)

Yes..[__]1
IF YES, GO TO QUESTION 41

No...[__]2
IF NO, GO TO QUESTION 42

41. Are most of the students in your dorm/housing athletes? (MARK ONE)

Yes..[__]1
No...[__]2

42. All things considered, do you think it's better for student-athletes to live together? (MARK ONE)

Yes..[__]1
No...[__]2

43. Please describe your view on student-athletes living together--whether it's better or not. (WRITE IN)

____

____

44. Do you know people with whom you can talk easily about personal problems? (MARK ONE)

Yes..[__]1
IF YES, GO TO QUESTION 45

No...[__]2
IF NO, GO TO QUESTION 46

45. Who are these people with whom you can talk about your problems? (MARK ONE FOR EACH)

	Yes	No
Teammates..	[__]1	[__]2
Other student-athletes.............................	[__]1	[__]2
Other students (not in athletics)..................	[__]1	[__]2
Other friends......................................	[__]1	[__]2
Coaches at this school.............................	[__]1	[__]2
Academic advisors at this school...................	[__]1	[__]2
Parents..	[__]1	[__]2
Brothers/Sisters...................................	[__]1	[__]2
Spouse (If not married, check here ☐)................	[__]1	[__]2
Other people (WRITE IN)________________________________		[__]3

46. How important is it for a coach to do or know the following things? (RATE EACH ITEM)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Know what life on campus is like for players	☐1	☐2	☐3	☐4
Try to help players with health problems	☐1	☐2	☐3	☐4
Listen to players' problems not related to athletics	☐1	☐2	☐3	☐4
Encourage players to do well in their courses	☐1	☐2	☐3	☐4
Keep track of how well players are doing in their courses	☐1	☐2	☐3	☐4

47. Overall, how well does the coach of your main sport do or know these things? (MARK ONE)

Excellently ☐1
Fairly well ☐2
Poorly ☐3
Terribly ☐4

48. Overall, how satisfied are you with the way the coaching staff of your main sport has helped you improve as an athlete? (MARK ONE)

Totally satisfied ☐1
More satisfied than dissatisfied ☐2
More dissatisfied than satisfied ☐3
Not satisfied at all ☐4

49. What is the gender of your coach? (MARK ONE)

Male ☐1
Female ☐2

50. Do you feel it is easier or harder for you, as a college athlete, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Get dates	☐1	☐2	☐3	☐4	☐5
Get to know other students	☐1	☐2	☐3	☐4	☐5
Speak your mind	☐1	☐2	☐3	☐4	☐5
Make your own decisions	☐1	☐2	☐3	☐4	☐5
Take on leadership responsibility	☐1	☐2	☐3	☐4	☐5
Exercise self control (restraint)	☐1	☐2	☐3	☐4	☐5
Set and achieve personal goals	☐1	☐2	☐3	☐4	☐5
Show others how talented you are	☐1	☐2	☐3	☐4	☐5
Learn from your mistakes	☐1	☐2	☐3	☐4	☐5
Earn praise or recognition for your abilities	☐1	☐2	☐3	☐4	☐5
Develop new abilities/skills	☐1	☐2	☐3	☐4	☐5
Take responsibility for others	☐1	☐2	☐3	☐4	☐5
Learn about yourself	☐1	☐2	☐3	☐4	☐5
Travel to new places	☐1	☐2	☐3	☐4	☐5
Get to know people of different races	☐1	☐2	☐3	☐4	☐5
Be liked by others for just being yourself	☐1	☐2	☐3	☐4	☐5
Talk about personal problems with others	☐1	☐2	☐3	☐4	☐5
Have close friends who will probably be friends forever	☐1	☐2	☐3	☐4	☐5
Be treated by your parents and family as an adult	☐1	☐2	☐3	☐4	☐5
Get special treatment from local townspeople and merchants	☐1	☐2	☐3	☐4	☐5

Items 51 to 65 refer to your recruitment experiences.

51. When you were a high school student, were you recruited by colleges? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 52

No..[__]2
IF NO, GO TO QUESTION 57

52. About how many schools recruited you?.................._______ Colleges

53. How were you recruited? (MARK ONE FOR EACH)

	Yes	No
Did you or your family receive letters?.................	[__]1	[__]2
Did you or your family receive telephone calls?....................................	[__]1	[__]2
Did you or your family visit schools at the schools' expense?...............................	[__]1	[__]2
Were you or your family visited in your home?..	[__]1	[__]2
Did you or your family go to special events on or off campus?.......................	[__]1	[__]2
Did you or your family receive personal gifts?..	[__]1	[__]2
Did city or community newspapers, radio, or TV report on your recruitment?...	[__]1	[__]2

Other (WRITE IN) ____[__]3

Other (WRITE IN) ____[__]4

54. How intense was the pressure on you during recruitment? (MARK ONE)

Extremely intense...[__]1
Intense...[__]2
Not very intense..[__]3
Not intense at all..[__]4

55. How much do you agree or disagree with the following statements? (MARK ONE FOR EACH)

	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
The information I got during recruitment helped me make the right college choice	☐1	☐2	☐3	☐4
The information I got during recruitment helped prepare me for college	☐1	☐2	☐3	☐4
The information I got during recruitment was misleading and caused me serious problems	☐1	☐2	☐3	☐4
Being recruited was a very unpleasant experience	☐1	☐2	☐3	☐4

56. If you had not been recruited, do you think you would have attended a four-year college? (MARK ONE)

Would definitely have attended a four-year college ☐1
Would probably have attended a four-year college ☐2
Would probably not have attended a four-year college ☐3
Would definitely not have attended a four-year college ☐4

57. Did you attend a two-year or junior college before attending this school? (MARK ONE)

Yes ☐1
IF YES, GO TO QUESTION 58

No ☐2
IF NO, GO TO QUESTION 65

58. Were you required to attend a two-year or junior college by any of the schools that recruited you? (MARK ONE)

Yes ☐1
No ☐2

59. While you were a student in a two-year or junior college, were you recruited? (MARK ONE)

Yes ☐1
IF YES, GO TO QUESTION 60

No ☐2
IF NO, GO TO QUESTION 65

60. How many schools recruited you? ________ Colleges

61. How were you recruited? (MARK ONE FOR EACH)

	Yes	No
Did you or your family receive letters?	☐1	☐2
Did you or your family receive telephone calls?	☐1	☐2
Did you or your family visit schools at the schools' expense?	☐1	☐2
Were you or your family visited in your home?	☐1	☐2
Did you or your family go to special events on or off campus?	☐1	☐2
Did you or your family receive personal gifts?	☐1	☐2
Did city or community newspapers, radio, or TV report on your recruitment?	☐1	☐2
Other (WRITE IN) ______________________________		☐3
Other (WRITE IN) ______________________________		☐4

62. How intense was the pressure on you during recruitment when you were in a two-year or junior college? (MARK ONE)

Extremely intense ☐1
Intense ☐2
Not very intense ☐3
Not intense at all ☐4

63. How much do you agree or disagree with the following statements? (MARK ONE FOR EACH)

	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
The information I got during recruitment helped me make the right choice of a four-year college................	☐1	☐2	☐3	☐4
The information I got during recruitment helped prepare me for this school................	☐1	☐2	☐3	☐4
The information I got during recruitment was misleading and caused me serious problems........	☐1	☐2	☐3	☐4
Being recruited was a very unpleasant experience............	☐1	☐2	☐3	☐4

64. If you had not been recruited, would you have attended a four-year college? (MARK ONE)

Would definitely have attended a four-year college................ ☐1
Would probably have attended a four-year college.................. ☐2
Would probably not have attended a four-year college.............. ☐3
Would definitely not have attended a four-year college............ ☐4

65. All things considered, what was the most important factor in your decision to come to this school? (WRITE IN)

____

____

Items 66 to 72 refer to your use of time at this school.

66. About how many total hours in a typical week at school (including weekends) do you spend doing things related to your main sport? (WRITE IN)

In season, when you compete as a representative of your school in contests that count toward regular season records.................................. ______Hrs.

Out of season, when you practice and condition but do not compete in intercollegiate contests that count toward regular season records.................. ______Hrs.

67. During a typical week (including weekends) in season, about how many hours do you usually spend: (WRITE IN)

Preparing for class?.......................... ________ hours/week

In class and lab?.......................... ________ hours/week

In extracurricular activities (besides your main sport)?.......................... ________ hours/week

In social activities (include "hanging out")?....... ________ hours/week

Relaxing by yourself?.......................... ________ hours/week

68. During a typical week (including weekends) out of season, about how many hours do you usually spend: (WRITE IN)

Preparing for class?.......................... ________ hours/week

In class and lab?.......................... ________ hours/week

In extracurricular activities (besides your main sport)?.......................... ________ hours/week

In social activities (include "hanging out")?....... ________ hours/week

Relaxing by yourself?.......................... ________ hours/week

69. About how many classes do you miss in a week for any reason? (WRITE IN)

In season.......................... ________classes/week

Out of season.......................... ________classes/week

70. If you had an extra 60 minutes each day that you could use any way you wanted (other than sleeping), how much of this would you spend: (WRITE IN)

Preparing for class?.......................... ________minutes

In class and lab?.......................... ________minutes

In your main sport?.......................... ________minutes

In other extracurricular activities?.......................... ________minutes

In social activities (include "hanging out")?.......... ________minutes

Relaxing by yourself--not sleeping?.................... ________minutes

71. Overall, how well do you think you manage your time? (MARK ONE)

Much better than other students..[__]1
Better than other students...[__]2
Worse than other students..[__]3
Much worse than other students...[__]4

72. Overall, how much help do you get in managing your time (e.g., from coaches, advisors)? (MARK ONE)

A lot of help..[__]1
Some help..[__]2
Not much help..[__]3
No help..[__]4

Items 73 to 87 refer to your financial situation.

73. Have you ever received an athletic grant (athletic scholarship) from this school? (MARK ONE)

Yes..[__]1
IF YES, GO TO QUESTION 74

No...[__]2
IF NO, GO TO QUESTION 79

74. Was the amount of the grant ever reduced? (MARK ONE)

Yes..[__]1
No...[__]2

75. Was the grant ever taken away? (MARK ONE)

Yes..[__]1
No...[__]2

76. Have you ever been threatened with a reduction in or loss of your grant? (MARK ONE)

Yes..[__]1
No...[__]2

77. Do you currently receive an athletic grant? (MARK ONE)

Yes..[__]1
No...[__]2

78. Is this a full or partial scholarship? (MARK ONE)

Full..[__]1
Partial...[__]2

79. Do you work at a paid job, or a job that provides you with benefits (e.g., meals), at any time during the academic year? (Include work-study) (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 80

No..[__]2
IF NO, GO TO QUESTION 82

80. What type of job is it?

(WRITE IN)____

81. About how many hours a week do you work at your job when employed? (WRITE IN)..........________hours/week

82. How important are each of the following for paying your educational and living costs this term? (MARK ONE FOR EACH)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Your spouse..............................	[__]1	[__]2	[__]3	[__]4
(If not married, check here ☐)				
Your parents or other family members........................	[__]1	[__]2	[__]3	[__]4
Alumni of this school (other than family)................................	[__]1	[__]2	[__]3	[__]4
Your own personal savings...............	[__]1	[__]2	[__]3	[__]4
Other friends............................	[__]1	[__]2	[__]3	[__]4
Athletic grants..........................	[__]1	[__]2	[__]3	[__]4
Other grants or scholarships...........	[__]1	[__]2	[__]3	[__]4
Your own personal loans.................	[__]1	[__]2	[__]3	[__]4
Jobs (during the summer or during the academic year).....................	[__]1	[__]2	[__]3	[__]4

Other ____[__]5
(WRITE IN)

83. If you needed a year after your eligibility is over to get your degree, how important would each of the following be for paying your educational and living costs? (MARK ONE FOR EACH)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Your spouse	[__]1	[__]2	[__]3	[__]4
(If not married, check here ☐)				
Your parents or other family members	[__]1	[__]2	[__]3	[__]4
Alumni of this school (other than family)	[__]1	[__]2	[__]3	[__]4
Your own personal savings	[__]1	[__]2	[__]3	[__]4
Other friends	[__]1	[__]2	[__]3	[__]4
Athletic grants	[__]1	[__]2	[__]3	[__]4
Other grants or scholarships	[__]1	[__]2	[__]3	[__]4
Your own personal loans	[__]1	[__]2	[__]3	[__]4
Jobs (during the summer or during the academic year)	[__]1	[__]2	[__]3	[__]4

Other ______________________________ [__]5
(WRITE IN)

84. Since entering college, how much money have you or your parents had to borrow to pay for expenses directly related to your education? Include only loans from the government or from private (financial) institutions. (MARK ONE)

None	[__]11
Less than $1,000	[__]12
$1,000-$3,000	[__]13
$3,001-$5,000	[__]14
$5,001-$7,000	[__]21
$7,001-$9,000	[__]22
$9,001-$11,000	[__]23
$11,001-$15,000	[__]31
$15,001-$19,000	[__]32
$19,001-$23,000	[__]33
$23,001-$27,000	[__]34
$27,001-$31,000	[__]41
$31,001-$35,000	[__]42
$35,001 or more	[__]43

85. About how much money do you have per month--AFTER EXPENSES FOR YOUR ROOM, FOOD, TUITION, FEES, AND COURSE-RELATED BOOKS? (MARK ONE)

None ☐ 11
Less than $50 ☐ 12
$50-$100 ☐ 13
$101-$150 ☐ 14

$151-$250 ☐ 21
$251-$350 ☐ 22
$351-$450 ☐ 23
$451-$550 ☐ 24

$551-$650 ☐ 31
$651-$750 ☐ 32
$751 or more ☐ 33

86. Is the amount of money you have per month after college expenses adequate? (MARK ONE)

Yes ☐ 1
No ☐ 2

87. Do you feel it is easier or harder for you, as a college athlete, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Get a part-time job	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Borrow money for school	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Get a summer job	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Have enough spending money	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Items 88 to 100 refer to your health.

88. How would you describe your health, in general? (MARK ONE)

Excellent ☐ 1
Good ☐ 2
Fair ☐ 3
Poor ☐ 4

89. Do you have any physical deformities or handicaps? (MARK ONE)

Yes ☐ 1
No ☐ 2

90. To what extent has each of the following bothered you since September? (MARK ONE FOR EACH)

	Greatly Bothered	Bothered	Slightly Bothered	Not at All Bothered
Colds	☐1	☐2	☐3	☐4
Sleeplessness or insomnia	☐1	☐2	☐3	☐4
Eating problems (e.g. excessive over-eating, starving yourself)	☐1	☐2	☐3	☐4
Extreme tiredness, exhaustion	☐1	☐2	☐3	☐4
Dental problems	☐1	☐2	☐3	☐4
Other (WRITE IN) ____________________				☐5

91. Since September, how many days of classes did you miss due to these conditions? (WRITE IN)................ __________ days

92. Have you had any injuries since September? By injuries, we mean things like broken bones, sprains, and muscle tears. (MARK ONE)

Yes.. ☐1
IF YES, GO TO QUESTION 93

No... ☐2
IF NO, GO TO QUESTION 98

93. To what extent have you been bothered by these injuries? (MARK ONE)

Greatly bothered.. ☐1
Bothered.. ☐2
Slightly bothered....................................... ☐3
Not at all bothered..................................... ☐4

94. Were your injuries the result of practicing or playing intercollegiate sports? (MARK ONE)

Yes... ☐1
No.. ☐2

95. How many days of classes did you miss due to injuries since September? (WRITE IN)............. __________ days

96. Did you ever feel pressure to ignore these injuries or just forget about them? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 97

No..[__]2
IF NO, GO TO QUESTION 98

97. How intense was the pressure on you to ignore these injuries or to just forget about them? (MARK ONE)

Extremely intense...[__]1
Intense...[__]2
Not very intense..[__]3
Not intense at all..[__]4

98. How satisfied are you with the medical care or treatment you have received from your school? (MARK ONE)

Totally satisfied...[__]1
More satisfied than dissatisfied................................[__]2
More dissatisfied than satisfied................................[__]3
Not satisfied at all..[__]4
Have not needed medical care while at school....................[__]5

99. Do you feel it is easier or harder for you, as a college athlete, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Keep in good physical shape........	[__]1	[__]2	[__]3	[__]4	[__]5
Avoid drugs	[__]1	[__]2	[__]3	[__]4	[__]5
Avoid alcohol.....................	[__]1	[__]2	[__]3	[__]4	[__]5
Get medical treatment.............	[__]1	[__]2	[__]3	[__]4	[__]5
Get dental care...................	[__]1	[__]2	[__]3	[__]4	[__]5
Get glasses or contact lenses...... (If not needed check here: ☐)	[__]1	[__]2	[__]3	[__]4	[__]5
Eat well..........................	[__]1	[__]2	[__]3	[__]4	[__]5

100. In general, how satisfied are you with your life? (MARK ONE)

Totally satisfied...[__]1
More satisfied than dissatisfied..................................[__]2
More dissatisfied than satisfied..................................[__]3
Not satisfied at all..[__]4

Items 101 to 110 refer to your general background.

101. What is your year of birth?...................................1 9 _ _

102. What year did you enroll in this school?......................1 9 _ _

103. What year did you first enter (any) college?..................1 9 _ _

104. What is your gender? (MARK ONE)

Male..[__]1
Female..[__]2

105. What is your origin or descent? (MARK ONE)

Hispanic or Spanish...[__]1
Non-Hispanic..[__]2

106. What is your race? (MARK ONE)

Black...[__]1
White...[__]2
American Indian or Alaskan Native.................................[__]3
Asian...[__]4
Pacific Islander..[__]5

Other (WRITE IN) ____......[__]6

107. Are you a U.S. citizen? (MARK ONE)

Yes...[__]1
No..[__]2

108. To the best of your memory, what was your grade average in high school? (MARK ONE)

A or A+........................[__]1
A-.............................[__]2
B+.............................[__]3
B..............................[__]4

B-.............................[__]5
C+.............................[__]6
C..............................[__]7
C- or below....................[__]8

Don't know.....................[__]88

109. To the best of your memory, what was your total score on the Scholastic Aptitude Test (SAT)? (MARK ONE)

Did not take SAT...............[__]1

1401 - 1600....................[__]2
1201 - 1400....................[__]3
1001 - 1200....................[__]4

801 - 1000.....................[__]5
601 - 800......................[__]6
401 - 600......................[__]7
400 or below...................[__]8

Don't know.....................[__]88

110. To the best of your memory, what was your total score on the American College Testing Program (ACT)? (MARK ONE)

Did not take ACT...............[__]1

33-36..........................[__]2
29-32..........................[__]3
25-28..........................[__]4

21-24..........................[__]5
17-20..........................[__]6
13-16..........................[__]7
12 or below....................[__]8

Don't know.....................[__]88

Items 111 to 115 ask about your parents. If you think of other adults more as your parents than your biological parents, answer the questions for those adults.

111. Approximately what was your parents' total income during the past year, before taxes, so far as you know? (MARK ONE)

Less than \$5,000..[__]11
\$5,000-\$10,000..[__]12
\$10,001-\$20,000..[__]13
\$20,001-\$30,000..[__]14
\$30,001-\$40,000..[__]15

\$40,001-\$50,000..[__]21
\$50,001-\$60,000..[__]22
\$60,001-\$70,000..[__]23
\$70,001-\$80,000..[__]24
\$80,001 or more..[__]25

112. Describe the most recent job held by your father. If retired, deceased, or unemployed, indicate the last job held.

Type of job (WRITE IN)________________________________

Typical work activities (WRITE IN) ________________________________

Never Worked..[__]87
Don't Know..[__]88

113. Describe the most recent job held by your mother. If retired, deceased, or unemployed, indicate the last job held.

Type of job (WRITE IN)________________________________

Typical work activities (WRITE IN)________________________________

Never Worked..[__]87
Don't Know..[__]88

114. What was the highest level of education your father completed? (MARK ONE)

Less than high school graduation..............................[__]1

High school graduation only..............................[__]2

Vocational, trade, or business school after high school..............................[__]3

College program--Less than four- or five-year degree (including two-year degree)..............................[__]4

College program--Finished four- or five-year degree..............................[__]5

College program--Master's degree, Ph.D., M.D., or other advanced professional degree..............................[__]6

Don't Know..............................[__]88

115. What was the highest level of education your mother completed? (MARK ONE)

Less than high school graduation..............................[__]1

High school graduation only..............................[__]2

Vocational, trade, or business school after high school..............................[__]3

College program--Less than four- or five-year degree (including two-year degree)..............................[__]4

College program--Finished four- or five-year degree..............................[__]5

College program--Master's degree, Ph.D., M.D., or other advanced professional degree..............................[__]6

Don't Know..............................[__]88

Item 116 gives you space to say what you would like to say.

116. Are there things about your life at college you would like to tell us that we didn't ask about? If so, what are they?

Appendix B

Extracurricular Student Questionnaire

National Study of Intercollegiate Athletes

American Institutes
for Research

Q

STUDY OF INTERCOLLEGIATE ATHLETICS

Extracurricular Student Questionnaire

P.O. Box 1113
Palo Alto, CA 94302
(415) 493-3550

(EQ) Extracurricular Student Questionnaire

We appreciate your participation in this nationwide study. Through your efforts, valuable information will be collected and used to help improve college programs.

The information you provide during this session is confidential--what you say will never be reported or connected with your name, this school, or anyone at this school.

First, read through the instructions carefully. If you have any question or problem, please call on a data collector for help.

Instructions:

1. To answer each item, put an "X" in the bracketed space to the right. For some items, you write in answers on the lines provided. Sometimes, when you write in an answer, you will also need to mark the bracketed space to the right.
2. After answering an item "yes" or "no," you may be told to GO to a specific item. Please read carefully and follow these directions.
3. If you have any questions about an item or about what you should do after you answer an item, please call on one of the data collectors to help immediately. These persons are here to help you.

When answering, please remember these things:

1. You are the subject of this questionnaire. We want to know your feelings and experiences, not those of others that you may have heard about.
2. In this questionnaire we refer to your "main extracurricular activity." Please choose as your main activity the one in which you spend the greatest amount of time.
3. In this questionnaire also, we refer to the "organizer or director of your main extracurricular activity." Please understand that, in this case, we mean the person you spend the most time with and take direction from--whether or not he or she is the official leader of the activity.

Now, please begin. We hope you find this an enjoyable experience.

Items 1-5 refer to general information about your college experience.

1. In terms of all your earned credits, how are you classified at this school? (MARK ONE)

   Freshman..[__]1
   Sophomore...[__]2
   Junior..[__]3
   Senior..[__]4
   Graduate student..................................[__]5
   Don't know..[__]88

2. Students here can participate in a variety of different school-sponsored extracurricular activities. With which extracurricular activity do you spend the most time? (WRITE IN)

   ____

   Subsequent items will ask about your "main extracurricular activity." This term refers to the activity written above.

3. Do you participate in any other extracurricular activities here? (MARK ONE)

   Yes...[__]1
   IF YES, GO TO QUESTION 4

   No..[__]2
   IF NO, GO TO QUESTION 5

4. Please list the other extracurricular activities with which you are involved.

   (WRITE IN) ______________________________________

   (WRITE IN) ______________________________________

5. How does the organizer or director of your main extracurricular activity feel about your participation in other extracurricular activities?

   Demands participation in other activities.........[__]1
   Encourages participation in other activities......[__]2
   Discourages participation in other activities.....[__]3
   Forbids participation in other activities.........[__]4
   Don't know..[__]88

Items 6 to 8 refer to when you enrolled at this school.

6. When you enrolled at this school, how important was it to you to get a degree? (MARK ONE)

Of greatest importance...[__]1
Important..[__]2
Somewhat important...[__]3
Not important at all...[__]4

7. When you enrolled at this school, in what major or field did you expect your degree?

MAJOR (WRITE IN) ____

No specific major..[__]87

8. When you enrolled at this school, what type of job did you expect to be working at in later life--at age 40?

JOB (WRITE IN) ____

No specific job..[__]87

Items 9 to 16 refer to the present time.

9. At the present time, how important is it to you to get a degree? (MARK ONE)

Of greatest importance...[__]1
Important..[__]2
Somewhat important...[__]3
Not important at all...[__]4

10. At the present time, do you expect to get a degree? (MARK ONE)

Yes..[__]1
IF YES, GO TO QUESTION 11

No...[__]2
IF NO, GO TO QUESTION 15

11. At the present time, in what year do you expect to get your degree?..................................1 9 _ _

12. At the present time, in what major or field do you expect your degree?

MAJOR (WRITE IN) ______________________________

No specific major..[__]87
IF NO, GO TO QUESTION 14

13. At the present time, how satisfied are you with this choice of major? (MARK ONE)

Totally satisfied..[__]1
More satisfied than dissatisfied.....................................[__]2
More dissatisfied than satisfied.....................................[__]3
Not satisfied at all...[__]4

14. At the present time, what are your present thoughts about going on to graduate or professional school? (MARK ONE)

Almost certainly will go on..[__]1
Probably will go on..[__]2
Possibly will go on..[__]3
Almost certainly will not go on......................................[__]4

No idea..[__]88

15. At the present time, what type of job do you expect to be working at in later life--at age 40?

JOB (WRITE IN) ______________________________

No specific job..[__]87

16. How important has each of the following persons been in influencing your education and career plans? (RATE EACH ITEM)

	Of Greatest Impor- tance	Impor- tant	Somewhat Impor- tant	Not Impor- tant At All
Spouse	[__]1	[__]2	[__]3	[__]4
(If not married, check here ☐)				
Parents and other family	[__]1	[__]2	[__]3	[__]4
Alumni of this school (not family)	[__]1	[__]2	[__]3	[__]4
Other friends	[__]1	[__]2	[__]3	[__]4
Director/organizer of your main extracurricular activity	[__]1	[__]2	[__]3	[__]4
Academic advisors at this school	[__]1	[__]2	[__]3	[__]4
Teachers at this school	[__]1	[__]2	[__]3	[__]4
High school teachers	[__]1	[__]2	[__]3	[__]4

Anyone else? (If so, please describe.)

____ [__]5
(Other person)

Item 17 refers to the future.

17. Thinking about the future, how important is each of the following to you? (RATE EACH ITEM)

	Of Greatest Impor- tance	Impor- tant	Somewhat Impor- tant	Not Impor- tant At All
Career success	[__]1	[__]2	[__]3	[__]4
Job security	[__]1	[__]2	[__]3	[__]4
Happiness	[__]1	[__]2	[__]3	[__]4
A good marriage	[__]1	[__]2	[__]3	[__]4
Raising children	[__]1	[__]2	[__]3	[__]4
Financial success	[__]1	[__]2	[__]3	[__]4
Good retirement	[__]1	[__]2	[__]3	[__]4
A long life	[__]1	[__]2	[__]3	[__]4
Good health	[__]1	[__]2	[__]3	[__]4
Making new friendships	[__]1	[__]2	[__]3	[__]4
Religious or spiritual fulfillment	[__]1	[__]2	[__]3	[__]4
Intellectual development	[__]1	[__]2	[__]3	[__]4

Items 18 to 26 refer to your educational experiences at this school.

18. Since first entering college, have you dropped out for any period of time? (MARK ONE)

No	[__]1
Yes, for less than one year	[__]2
Yes, for one academic year	[__]3
Yes, for more than one year	[__]4

19. At this school, have you: (MARK ONE FOR EACH)

	Yes	No
Found many courses too difficult?	[__]1	[__]2
Repeated one or more courses?	[__]1	[__]2
Received "incomplete" grades for courses in one or more terms?	[__]1	[__]2
Attended one or more summer sessions?	[__]1	[__]2
Taken one or more intersession courses (e.g., courses between semesters)?	[__]1	[__]2
Ever been on academic probation?	[__]1	[__]2

20. Have you attended any of the following at this school? (MARK ONE FOR EACH)

	Yes	No
An orientation program for college studies and college life	[__]1	[__]2
Special courses on taking notes, listening in class, preparing assignments	[__]1	[__]2
Special courses to review basic skills--such as reading, writing, mathematics	[__]1	[__]2

21. How satisfied are you with the courses you are taking this term? (MARK ONE)

Totally satisfied	[__]1
More satisfied than dissatisfied	[__]2
More dissatisfied than satisfied	[__]3
Not satisfied at all	[__]4

22. How satisfied are you with your performance in these courses? (MARK ONE)

Totally satisfied....................[__]1
More satisfied than dissatisfied.....[__]2
More dissatisfied than satisfied.....[__]3
Not satisfied at all.................[__]4

23. Are you usually in courses (or sections of courses) with many other students in extracurricular activities? (MARK ONE)

Yes..................................[__]1
No...................................[__]2
Don't know...........................[__]88

24. Do you feel it is easier or harder for you, as a participant in extracurricular activities, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Be regarded as a serious student by professors	[__]1	[__]2	[__]3	[__]4	[__]5
Get help from professors	[__]1	[__]2	[__]3	[__]4	[__]5
Reschedule exams or due dates for assignments	[__]1	[__]2	[__]3	[__]4	[__]5
Keep up with coursework	[__]1	[__]2	[__]3	[__]4	[__]5
Get help from teaching assistants	[__]1	[__]2	[__]3	[__]4	[__]5
Choose the courses you want to take	[__]1	[__]2	[__]3	[__]4	[__]5
Get help from tutors	[__]1	[__]2	[__]3	[__]4	[__]5
Make academics your top priority	[__]1	[__]2	[__]3	[__]4	[__]5
Get the grades you are capable of	[__]1	[__]2	[__]3	[__]4	[__]5
Talk to academic counselors about your program	[__]1	[__]2	[__]3	[__]4	[__]5
Prepare for classes	[__]1	[__]2	[__]3	[__]4	[__]5
Study for exams	[__]1	[__]2	[__]3	[__]4	[__]5
Get feedback on how well you are doing in courses	[__]1	[__]2	[__]3	[__]4	[__]5

25. How satisfied are you with your overall academic performance at this school? (MARK ONE)

Totally satisfied..☐1
More satisfied than dissatisfied...☐2
More dissatisfied than satisfied...☐3
Not satisfied at all...☐4

26. How satisfied are you with your overall performance in extracurricular activities at this school? (MARK ONE)

Totally satisfied..☐1
More satisfied than dissatisfied...☐2
More dissatisfied than satisfied...☐3
Not satisfied at all...☐4

Items 27 to 43 refer to your personal/interpersonal experiences at this school.

27. About how often have you experienced the following since you have been at this school? (MARK ONE FOR EACH)

	Frequently (More Than 10 Times)	Occasionally (About 6 to 10 Times)	Rarely (About 1 to 5 Times)	Never
A feeling that you lack control over your life........	☐1	☐2	☐3	☐4
A sense you are different from other students...........	☐1	☐2	☐3	☐4
Racial isolation..............	☐1	☐2	☐3	☐4
Physical abuse................	☐1	☐2	☐3	☐4
Mental or emotional abuse.........................	☐1	☐2	☐3	☐4
Racial discrimination.........	☐1	☐2	☐3	☐4
Isolation from other students.....................	☐1	☐2	☐3	☐4
Sexual discrimination.........	☐1	☐2	☐3	☐4

28. On or off this campus, do you belong to a(n): (MARK ONE FOR EACH)

	Yes	No
Social fraternity or sorority?	☐1	☐2
Religious club or fellowship?	☐1	☐2
Interest or hobby club (e.g., chess club)?	☐1	☐2
Political group?	☐1	☐2
Service organization (e.g., YMCA volunteer)?	☐1	☐2
Athletic team (intramural or intercollegiate)?	☐1	☐2
Other group? (WRITE IN) ______________________		☐3

29. With whom do you spend most of your free time on campus? (MARK ONE)

Students involved with your main extracurricular activity.......... ☐1
Students involved with other extracurricular activities............ ☐2
Other students (not involved with any extracurricular activities)......... ☐3

Other people (WRITE IN) ______________________ ... ☐4

No one, prefer to be alone......... ☐5

30. When you are with others during your free time, which of the following things do you usually talk about? (MARK ONE FOR EACH)

	Yes	No
Classes	☐1	☐2
Grades	☐1	☐2
Sports in general	☐1	☐2
Politics	☐1	☐2
Current events	☐1	☐2
Other friends	☐1	☐2
Music	☐1	☐2
Future plans	☐1	☐2
Family	☐1	☐2
Organizers/directors of extracurricular activities	☐1	☐2
Your main extracurricular activity	☐1	☐2
Other? (WRITE IN) ______________________		☐3

31. Do you live with one or more roommates? (MARK ONE)

Yes..[__]1
IF YES, GO TO QUESTION 32

No...[__]2
IF NO, GO TO QUESTION 34

32. Are one or more of your roommates involved in extracurricular activities? (MARK ONE)

Yes..[__]1
IF YES, GO TO QUESTION 33

No...[__]2
IF NO, GO TO QUESTION 34

33. Are you required to live with students in extracurricular activities? (MARK ONE)

Yes..[__]1
No...[__]2

34. Do you live in housing owned or run by the school? (MARK ONE)

Yes..[__]1
No...[__]2

35. All things considered, do you think it's better for people involved in extracurricular activities to live together? (MARK ONE)

Yes..[__]1
No...[__]2

36. Please describe your view on students in extracurricular activities living together--whether it's better or not. (WRITE IN)

____

____

37. Do you know people with whom you can talk easily about personal problems? (MARK ONE)

Yes..[__]1
IF YES, GO TO QUESTION 38

No...[__]2
IF NO, GO TO QUESTION 39

38. Who are these people with whom you can talk about your problems? (MARK ONE FOR EACH)

	Yes	No
Students involved in your main extracurricular activity	[__]1	[__]2
Students involved in other extracurricular activities	[__]1	[__]2
Other students	[__]1	[__]2
Other friends	[__]1	[__]2
Organizers/directors of extracurricular activities	[__]1	[__]2
Academic advisors at this school	[__]1	[__]2
Parents	[__]1	[__]2
Brothers/sisters	[__]1	[__]2
Spouse (If not married, check here ☐)	[__]1	[__]2
Other people (WRITE IN) ______________________		[__]3

39. How important is it for an organizer/ director of extracurricular activities to do or know the following things? (RATE EACH ITEM)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Know what life on campus is like for students involved in the activity	[__]1	[__]2	[__]3	[__]4
Try to help students involved in the activity with health problems	[__]1	[__]2	[__]3	[__]4
Listen to the problems of involved students not related to the activity	[__]1	[__]2	[__]3	[__]4
Encourage involved students to do well in their courses	[__]1	[__]2	[__]3	[__]4
Keep track of how well involved students are doing in their courses	[__]1	[__]2	[__]3	[__]4

40. Overall, how well does the organizer/director of your main extracurricular activity do or know these things? (MARK ONE)

Excellently..[__]1
Fairly well..[__]2
Poorly...[__]3
Terribly...[__]4

41. Overall, how satisfied are you with the way the organizers and staff of your main extracurricular activity have helped you improve in this activity? (MARK ONE)

Totally satisfied..[__]1
More satisfied than dissatisfied.............................[__]2
More dissatisfied than satisfied.............................[__]3
Not satisfied at all...[__]4

42. What is the gender of the organizer/director of your main extracurricular activity? (MARK ONE)

Male...[__]1
Female...[__]2

43. Do you feel it is easier or harder for you, as a participant in extracurricular activities, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Get dates	☐1	☐2	☐3	☐4	☐5
Get to know other students	☐1	☐2	☐3	☐4	☐5
Speak your mind	☐1	☐2	☐3	☐4	☐5
Make your own decisions	☐1	☐2	☐3	☐4	☐5
Take on leadership responsibility	☐1	☐2	☐3	☐4	☐5
Exercise self control (restraint)	☐1	☐2	☐3	☐4	☐5
Set and achieve personal goals	☐1	☐2	☐3	☐4	☐5
Show others how talented you are	☐1	☐2	☐3	☐4	☐5
Learn from your mistakes	☐1	☐2	☐3	☐4	☐5
Earn praise or recognition for your abilities	☐1	☐2	☐3	☐4	☐5
Develop new abilities/skills	☐1	☐2	☐3	☐4	☐5
Take responsibility for others	☐1	☐2	☐3	☐4	☐5
Learn about yourself	☐1	☐2	☐3	☐4	☐5
Travel to new places	☐1	☐2	☐3	☐4	☐5
Get to know people of different races	☐1	☐2	☐3	☐4	☐5
Be liked by others for just being yourself	☐1	☐2	☐3	☐4	☐5
Talk about personal problems with others	☐1	☐2	☐3	☐4	☐5
Have close friends who will probably be friends forever	☐1	☐2	☐3	☐4	☐5
Be treated by your parents and family as an adult	☐1	☐2	☐3	☐4	☐5
Get special treatment from local townspeople and merchants	☐1	☐2	☐3	☐4	☐5

Items 44 to 58 refer to your college choice experiences.

44 When you were a high school student, were you actively sought after by colleges? (MARK ONE)

Yes...☐1
IF YES, GO TO QUESTION 45

No..☐2
IF NO, GO TO QUESTION 50

45. About how many schools tried to get you to attend their institution?................................______colleges

46. How did they try to convince you to apply for admission? (MARK ONE FOR EACH)

	Yes	No
Did you or your family receive letters?.................	☐1	☐2
Did you or your family receive telephone calls?..	☐1	☐2
Did you or your family visit schools at the schools' expense?................................	☐1	☐2
Were you or your family visited in your home?..	☐1	☐2
Did you or your family go to special events on or off campus?......................	☐1	☐2
Did you or your family receive personal gifts?..	☐1	☐2
Other (WRITE IN) ________________________________		☐3
Other (WRITE IN) ________________________________		☐4

47. How intense was the pressure on you to attend particular schools when you were a high school student? (MARK ONE)

Extremely intense...☐1
Intense...☐2
Not very intense..☐3
Not intense at all..☐4

48. How much do you agree or disagree with the following statements? (MARK ONE FOR EACH)

	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
The information I got from colleges seeking my enrollment helped me make the right college choice....................	☐1	☐2	☐3	☐4
The information I got from colleges seeking my enrollment helped prepare me for college.....	☐1	☐2	☐3	☐4
The information I got from colleges seeking my enrollment was misleading and caused me serious problems..................	☐1	☐2	☐3	☐4
Being sought after by colleges was a very unpleasant experience......................	☐1	☐2	☐3	☐4

49. If no school had tried to get you to apply, do you think you would have attended a four-year college? (MARK ONE)

Would definitely have attended a four-year college.................☐1
Would probably have attended a four-year college..................☐2
Would probably not have attended a four-year college..............☐3
Would definitely not have attended a four-year college.............☐4

50. Did you attend a two-year or junior college before attending this school? (MARK ONE)

Yes...☐1
IF YES, GO TO QUESTION 51

No..☐2
IF NO, GO TO QUESTION 58

51. Were you required to attend a two-year or junior college by any of the schools that wanted you to enroll at their institution? (MARK ONE)

Yes...☐1
No..☐2

52. While you were a student in a two-year or junior college, were you actively sought after by other colleges? (MARK ONE)

Yes...☐1
IF YES, GO TO QUESTION 53

No..☐2
IF NO, GO TO QUESTION 58

53. About how many schools tried to get you to attend their institution?.............................._______colleges

54. How did they try to convince you to apply for admission? (MARK ONE FOR EACH)

	Yes	No
Did you or your family receive letters?................	☐1	☐2
Did you or your family receive telephone calls?..	☐1	☐2
Did you or your family visit schools at the schools' expense?...............................	☐1	☐2
Were you or your family visited in your home?..	☐1	☐2
Did you or your family go to special events on or off campus?.......................	☐1	☐2
Did you or your family receive personal gifts?..	☐1	☐2
Other (WRITE IN) ______________________________		☐3
Other (WRITE IN) ______________________________		☐4

55. How intense was the pressure on you to attend particular schools when you were in a two-year or junior college? (MARK ONE)

Extremely intense...☐1
Intense...☐2
Not very intense..☐3
Not intense at all...☐4

56. How much do you agree or disagree with the following statements? (MARK ONE FOR EACH)

	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
The information I got from colleges seeking my enrollment helped me make the right choice of a four-year college	☐1	☐2	☐3	☐4
The information I got from colleges seeking my enrollment helped prepare me for this school	☐1	☐2	☐3	☐4
The information I got from colleges seeking my enrollment was misleading and caused me serious problems	☐1	☐2	☐3	☐4
Being sought after by colleges was a very unpleasant experience	☐1	☐2	☐3	☐4

57. If no school had tried to get you to apply, would you have attended a four-year college? (MARK ONE)

Would definitely have attended a four-year college.................☐1
Would probably have attended a four-year college..................☐2
Would probably not have attended a four-year college...............☐3
Would definitely not have attended a four-year college.............☐4

58. All things considered, what was the most important factor in your decision to come to this school? (WRITE IN)

Items 59 to 65 refer to your use of time at this school.

59. About how many total hours in a typical week at school (including weekends) do you spend doing things related to your main extracurricular activity? (WRITE IN)

In semesters/quarters when you're heavily involved in this activity................................_______Hrs.

In semesters/quarters when you're not as heavily involved in this activity..........................._______Hrs.

60. During a typical week (including weekends) in semesters/quarters when you're heavily involved with your main extracurricular activity, about how many hours do you usually spend: (WRITE IN)

Preparing for class?................................_______ hours/week

In class and lab?...................................._______ hours/week

In extracurricular activities? (besides your main activity)..................................._______ hours/week

In social activities (include "hanging out")?......._______ hours/week

Relaxing by yourself?..............................._______ hours/week

61. During a typical week (including weekends) in semesters/quarters when you're not as heavily involved with your main extracurricular activity, about how many hours do you usually spend: (WRITE IN)

Preparing for class?................................_______ hours/week

In class and lab?...................................._______ hours/week

In other extracurricular activities? (besides your main activity)..................................._______ hours/week

In social activities (include "hanging out")?......._______ hours/week

Relaxing by yourself?..............................._______ hours/week

62. About how many classes do you miss in a week for any reason? (WRITE IN)

In semesters/quarters when you're heavily involved in your main extracurricular activity......_______classes/week

In semesters/quarters when you're not as heavily involved in this activity.................._______classes/week

63. If you had an extra 60 minutes each day that you could use any way you wanted (other than sleeping), how much of this would you spend: (WRITE IN)

Preparing for class?......................................_______minutes

In class and lab?..._______minutes

In your main extracurricular activity?..........................._______minutes

In other extracurricular activities?........................._______minutes

In social activities (include "hanging out")?..............._______minutes

Relaxing by yourself--not sleeping?.........................._______minutes

64. Overall, how well do you think you manage your time? (MARK ONE)

Much better than other students....................................[__]1
Better than other students...[__]2
Worse than other students..[__]3
Much worse than other students.....................................[__]4

65. Overall, how much help do you get in managing your time (e.g., from your activity's organizer/director, advisors)? (MARK ONE)

A lot of help..[__]1
Some help..[__]2
Not much help..[__]3
No help..[__]4

Items 66 to 80 refer to your financial situation.

66. Have you ever received a scholarship or grant from this school that was tied directly to your participation in an extracurricular activity? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 67

No..[__]2
IF NO, GO TO QUESTION 72

67. Was the amount of the scholarship or grant ever reduced? (MARK ONE)

Yes...[__]1
No..[__]2

68. Was the scholarship or grant ever taken away? (MARK ONE)

Yes...[__]1
No..[__]2

69. Have you ever been threatened with a reduction in or loss of your scholarship or grant? (MARK ONE)

Yes...[__]1
No..[__]2

70. Do you currently receive this scholarship or grant? (MARK ONE)

Yes...[__]1
No..[__]2

71. Is this a full or partial scholarship? (MARK ONE)

Full..[__]1
Partial...[__]2

72. Do you work at a paid job, or a job that provides you with benefits (e.g., meals), at any time during the academic year? (Include work-study) (MARK ONE)

73. What type of job is it?

(WRITE IN)____

74. About how many hours a week do you work at your job when employed? (WRITE IN).........______________hours/week

75. How important are each of the following for paying your educational and living costs this term? (MARK ONE FOR EACH)

	Of Greatest Impor-tance	Impor-tant	Somewhat Impor-tant	Not Impor-tant At All
Your spouse..............................	[__]1	[__]2	[__]3	[__]4
(If not married, check here ☐)				
Your parents or other family members..........................	[__]1	[__]2	[__]3	[__]4
Alumni of this school (other than family)..................................	[__]1	[__]2	[__]3	[__]4
Your own personal savings...............	[__]1	[__]2	[__]3	[__]4
Other friends...........................	[__]1	[__]2	[__]3	[__]4
Grants/scholarships related to extracurricular activities..............	[__]1	[__]2	[__]3	[__]4
Other grants or scholarships............	[__]1	[__]2	[__]3	[__]4
Your own personal loans.................	[__]1	[__]2	[__]3	[__]4
Jobs (during the summer or during the academic year)......................	[__]1	[__]2	[__]3	[__]4

Other ____[__]5
(WRITE IN)

76. If you needed an extra year to get your degree, how important would each of the following be for paying your educational and living costs? (MARK ONE FOR EACH)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Your spouse	☐1	☐2	☐3	☐4
(If not married, check here ☐)				
Your parents or other family members	☐1	☐2	☐3	☐4
Alumni of this school (other than family)	☐1	☐2	☐3	☐4
Your own--personal savings	☐1	☐2	☐3	☐4
Other friends	☐1	☐2	☐3	☐4
Grants/scholarships related to extracurricular activities	☐1	☐2	☐3	☐4
Other grants or scholarships	☐1	☐2	☐3	☐4
Your own--personal loans	☐1	☐2	☐3	☐4
Jobs (during the summer or during the academic year)	☐1	☐2	☐3	☐4

Other ______________________________ ☐5
(WRITE IN)

77. Since entering college, how much money have you or your parents had to borrow to pay for expenses directly related to your education? Include only loans from the government or from private (financial) institutions. (MARK ONE)

None	☐11
Less than $1,000	☐12
$1,000-$3,000	☐13
$3,001-$5,000	☐14
$5,001-$7,000	☐21
$7,001-$9,000	☐22
$9,001-$11,000	☐23
$11,001-$15,000	☐31
$15,001-$19,000	☐32
$19,001-$23,000	☐33
$23,001-$27,000	☐34
$27,001-$31,000	☐41
$31,001-$35,000	☐42
$35,001 or more	☐43

78. About how much money do you have per month--AFTER EXPENSES FOR YOUR ROOM, FOOD, TUITION, FEES, AND COURSE-RELATED BOOKS? (MARK ONE)

None	[__]11
Less than $50	[__]12
$50-$100	[__]13
$101-$150	[__]14
$151-$250	[__]21
$251-$350	[__]22
$351-$450	[__]23
$451-$550	[__]24
$551-$650	[__]31
$651-$750	[__]32
$751 or more	[__]33

79. Is the amount of money you have per month after college expenses adequate? (MARK ONE)

Yes	[__]1
No	[__]2

80. Do you feel it is easier or harder for you, as a participant in extracurricular activities, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Get a part-time job	[__]1	[__]2	[__]3	[__]4	[__]5
Borrow money for school	[__]1	[__]2	[__]3	[__]4	[__]5
Get a summer job	[__]1	[__]2	[__]3	[__]4	[__]5
Have enough spending money	[__]1	[__]2	[__]3	[__]4	[__]5

Items 81 to 93 refer to your health.

81. How would you describe your health, in general? (MARK ONE)

Excellent	[__]1
Good	[__]2
Fair	[__]3
Poor	[__]4

82. Do you have any physical deformities or handicaps? (MARK ONE)

Yes..☐1
No...☐2

83. To what extent has each of the following bothered you since September? (MARK ONE FOR EACH)

	Greatly Bothered	Bothered	Slightly Bothered	Not at All Bothered
Colds..............................	☐1	☐2	☐3	☐4
Sleeplessness or insomnia............	☐1	☐2	☐3	☐4
Eating problems (e.g. excessive over-eating, starving yourself)......	☐1	☐2	☐3	☐4
Extreme tiredness, exhaustion........	☐1	☐2	☐3	☐4
Dental problems......................	☐1	☐2	☐3	☐4

Other (WRITE IN)____☐5

84. Since September, how many days of classes did you miss due to these conditions? (WRITE IN)................__________ days

85. Have you had any injuries since September? By injuries, we mean things like broken bones, sprains, and muscle tears. (MARK ONE)

Yes..☐1
IF YES, GO TO QUESTION 86

No...☐2
IF NO, GO TO QUESTION 91

86. To what extent have you been bothered by these injuries? (MARK ONE)

Greatly bothered...☐1
Bothered...☐2
Slightly bothered..☐3
Not at all bothered..☐4

87. Were your injuries the result of participating in extracurricular activities? (MARK ONE)

Yes..☐1
No...☐2

88. How many days of classes did you miss due to injuries since September? (WRITE IN).............__________ days

89. Did you ever feel pressure to ignore these injuries or just forget about them? (MARK ONE)

Yes...☐1
IF YES, GO TO QUESTION 90

No..☐2
IF NO, GO TO QUESTION 91

90. How intense was the pressure on you to ignore these injuries or to just forget about them? (MARK ONE)

Extremely intense...☐1
Intense...☐2
Not very intense..☐3
Not intense at all...☐4

91. How satisfied are you with the medical care or treatment you have received from your school? (MARK ONE)

Totally satisfied...☐1
More satisfied than dissatisfied....................................☐2
More dissatisfied than satisfied....................................☐3
Not satisfied at all...☐4
Have not needed medical care while at school........................☐5

92. Do you feel it is easier or harder for you, as a participant in extracurricular activities, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Keep in good physical shape........	☐1	☐2	☐3	☐4	☐5
Avoid drugs	☐1	☐2	☐3	☐4	☐5
Avoid alcohol.....................	☐1	☐2	☐3	☐4	☐5
Get medical treatment.............	☐1	☐2	☐3	☐4	☐5

93. In general, how satisfied are you with your life? (MARK ONE)

Totally satisfied...☐1
More satisfied than dissatisfied....................................☐2
More dissatisfied than satisfied....................................☐3
Not satisfied at all...☐4

Items 94 to 103 refer to your general background.

94. What is your year of birth?.................................1 9 _ _

95. What year did you enroll in this school?.........................1 9 _ _

96. What year did you first enter (any) college?....................1 9 _ _

97. What is your gender? (MARK ONE)

Male..[__]1
Female..[__]2

98. What is your origin or descent? (MARK ONE)

Hispanic or Spanish...................................[__]1
Non-Hispanic..[__]2

99. What is your race? (MARK ONE)

Black...[__]1
White...[__]2
American Indian or Alaskan Native.....................[__]3
Asian...[__]4
Pacific Islander......................................[__]5

Other (WRITE IN) ______________________________......[__]6

100. Are you a U.S. citizen? (MARK ONE)

Yes...[__]1
No..[__]2

101. To the best of your memory, what was your grade average in high school? (MARK ONE)

A or A+...[__]1
A-..[__]2
B+..[__]3
B...[__]4

B-..[__]5
C+..[__]6
C...[__]7
C- or below...[__]8

Don't know..[__]88

102. To the best of your memory, what was your total score on the Scholastic Aptitude Test (SAT)? (MARK ONE)

Did not take SAT..[__]1

1401 - 1600..[__]2
1201 - 1400..[__]3
1001 - 1200..[__]4

801 - 1000..[__]5
601 - 800..[__]6
401 - 600..[__]7
400 or below..[__]8

Don't know..[__]88

103. To the best of your memory, what was your total score on the American College Testing Program (ACT)? (MARK ONE)

Did not take ACT..[__]1

33-36..[__]2
29-32..[__]3
25-28..[__]4

21-24..[__]5
17-20..[__]6
13-16..[__]7
12 or below..[__]8

Don't know..[__]88

Items 104 - 108 ask about your parents. If you think of other adults more as your parents than your biological parents, answer the questions for those adults.

104. Approximately what was your parents' total income during the past year, before taxes, so far as you know? (MARK ONE)

Less than $5,000	☐ 11
$5,000-$10,000	☐ 12
$10,001-$20,000	☐ 13
$20,001-$30,000	☐ 14
$30,001-$40,000	☐ 15
$40,001-$50,000	☐ 21
$50,001-$60,000	☐ 22
$60,001-$70,000	☐ 23
$70,001-$80,000	☐ 24
$80,001 or more	☐ 25

105. Describe the most recent job held by your father. If retired, deceased, or unemployed, indicate the last job held.

Type of job (WRITE IN) ____________________

Typical work activities (WRITE IN) ____________________

Never Worked	☐ 87
Don't Know	☐ 88

106. Describe the most recent job held by your mother. If retired, deceased, or unemployed, indicate the last job held.

Type of job (WRITE IN) ____________________

Typical work activities (WRITE IN) ____________________

Never Worked	☐ 87
Don't Know	☐ 88

107. What was the highest level of education your father completed? (MARK ONE)

Less than high school graduation.................................[__]1

High school graduation only......................................[__]2

Vocational, trade, or business school after high school..[__]3

College program--Less than four- or five-year degree (including two-year degree)................................[__]4

College program--Finished four- or five-year degree..[__]5

College program--Master's degree, Ph.D., M.D., or other advanced professional degree............................[__]6

Don't Know...[__]88

108. What was the highest level of education your mother completed? (MARK ONE)

Less than high school graduation.................................[__]1

High school graduation only......................................[__]2

Vocational, trade, or business school after high school..[__]3

College program--Less than four- or five-year degree (including two-year degree)................................[__]4

College program--Finished four- or five-year degree..[__]5

College program--Master's degree, Ph.D., M.D., or other advanced professional degree............................[__]6

Don't Know...[__]88

Item 109 gives you space to say what you would like to say.

109. Are there things about your life at college you would like to tell us that we didn't ask about? If so, what are they?

(EQ)

Appendix C

Student Questionnaire

National Study of Intercollegiate Athletes

American Institutes
for Research

Q

☐☐☐☐☐☐☐☐

STUDY OF INTERCOLLEGIATE ATHLETICS

Student Questionnaire

P.O. Box 1113
Palo Alto, CA 94302
(415) 493-3550

(SQ) Student Questionnaire

We appreciate your participation in this nationwide study. Through your efforts, valuable information will be collected and used to help improve college programs.

The information you provide during this session is confidential--what you say will never be reported or connected with your name, this school, or anyone at this school.

First, read through the instructions carefully. If you have any question or problem, please call on a data collector for help.

Instructions:

1. To answer each item, put an "X" in the bracketed space to the right. For some items, you write in answers on the lines provided. Sometimes, when you write in an answer, you will also need to mark the bracketed space to the right.
2. After answering an item "yes" or "no," you may be told to GO to a specific item. Please read carefully and follow these directions.
3. If you have any questions about an item or about what you should do after you answer an item, please call on one of the data collectors to help immediately. These persons are here to help you.

When answering, please remember these things:

You are the subject of this questionnaire. We want to know your feelings and experiences, not those of others that you may have heard about.

Now, please begin. We hope you find this an enjoyable experience.

Items 1-3 refer to general information about your college experience.

1. In terms of all your earned credits, how are you classified at this school? (MARK ONE)

Freshman.. [__]1
Sophomore... [__]2
Junior.. [__]3
Senior.. [__]4
Graduate student.. [__]5
Don't know.. [__]88

2. Do you participate in any extracurricular activities here? (MARK ONE)

Yes... [__]1
IF YES, GO TO QUESTION 3

No.. [__]2
IF NO, GO TO QUESTION 4

3. Please list the extracurricular activities with which you are involved.

(WRITE IN)____

(WRITE IN)____

Items 4 to 6 refer to when you enrolled at this school.

4. When you enrolled at this school, how important was it to you to get a degree? (MARK ONE)

Of greatest importance.................................... [__]1
Important... [__]2
Somewhat important.. [__]3
Not important at all...................................... [__]4

5. When you enrolled at this school, in what major or field did you expect your degree?

MAJOR (WRITE IN)

No specific major... [__]87

6. When you enrolled at this school, what type of job did you expect to be working at in later life--at age 40?

JOB (WRITE IN)

No specific job... [__]87

Items 7 to 14 refer to the present time.

7. At the present time, how important is it to you to get a degree? (MARK ONE)

Of greatest importance ☐ 1
Important ☐ 2
Somewhat important ☐ 3
Not important at all ☐ 4

8. At the present time, do you expect to get a degree? (MARK ONE)

Yes ☐ 1
IF YES, GO TO QUESTION 9

No ☐ 2
IF NO, GO TO QUESTION 13

9. At the present time, in what year do you expect to get your degree? 1 9 _ _

10. At the present time, in what major or field do you expect your degree?

MAJOR (WRITE IN) ______________________

No specific major ☐ 87
IF NO, GO TO QUESTION 12

11. At the present time, how satisfied are you with this choice of major? (MARK ONE)

Totally satisfied ☐ 1
More satisfied than dissatisfied ☐ 2
More dissatisfied than satisfied ☐ 3
Not satisfied at all ☐ 4

12. At the present time, what are your present thoughts about going on to graduate or professional school? (MARK ONE)

Almost certainly will go on ☐ 1
Probably will go on ☐ 2
Possibly will go on ☐ 3
Almost certainly will not go on ☐ 4

No idea ☐ 88

13. At the present time, what type of job do you expect to be working at in later life--at age 40?

JOB (WRITE IN)______________________________

No specific job..[__]87

14. How important has each of the following persons been in influencing your education and career plans? (RATE EACH ITEM)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Spouse..................................	[__]1	[__]2	[__]3	[__]4
(If not married, check here ☐)				
Parents and other family................	[__]1	[__]2	[__]3	[__]4
Alumni of this school (not family)......	[__]1	[__]2	[__]3	[__]4
Other friends...........................	[__]1	[__]2	[__]3	[__]4
Academic advisors at this school........	[__]1	[__]2	[__]3	[__]4
Teachers at this school.................	[__]1	[__]2	[__]3	[__]4
High school teachers....................	[__]1	[__]2	[__]3	[__]4

Anyone else? (If so, please describe.)

____[__]5

(Other person)

Item 15 refers to the future.

15. Thinking about the future, how important is each of the following to you? (RATE EACH ITEM)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Career success	☐1	☐2	☐3	☐4
Job security	☐1	☐2	☐3	☐4
Happiness	☐1	☐2	☐3	☐4
A good marriage	☐1	☐2	☐3	☐4
Raising children	☐1	☐2	☐3	☐4
Financial success	☐1	☐2	☐3	☐4
Good retirement	☐1	☐2	☐3	☐4
A long life	☐1	☐2	☐3	☐4
Good health	☐1	☐2	☐3	☐4
Making new friendships	☐1	☐2	☐3	☐4
Religious or spiritual fulfillment	☐1	☐2	☐3	☐4
Intellectual development	☐1	☐2	☐3	☐4

Items 16 to 23 refer to your educational experiences at this school.

16. Since first entering college, have you dropped out for any period of time? (MARK ONE)

No ☐1
Yes, for less than one year ☐2
Yes, for one academic year ☐3
Yes, for more than one year ☐4

17. At this school, have you: (MARK ONE FOR EACH)

	Yes	No
Found many courses too difficult?	☐1	☐2
Repeated one or more courses?	☐1	☐2
Received "incomplete" grades for courses in one or more terms?	☐1	☐2
Attended one or more summer sessions?	☐1	☐2
Taken one or more intersession courses (e.g., courses between semesters)?	☐1	☐2
Ever been on academic probation?	☐1	☐2

18. Have you attended any of the following at this school? (MARK ONE FOR EACH)

	Yes	No
An orientation program for college studies and college life	☐1	☐2
Special courses on taking notes, listening in class, preparing assignments	☐1	☐2
Special courses to review basic skills--such as reading, writing, mathematics	☐1	☐2

19. How satisfied are you with the courses you are taking this term? (MARK ONE)

Totally satisfied...☐1
More satisfied than dissatisfied..............................☐2
More dissatisfied than satisfied..............................☐3
Not satisfied at all..☐4

20. How satisfied are you with your performance in these courses? (MARK ONE)

Totally satisfied...☐1
More satisfied than dissatisfied..............................☐2
More dissatisfied than satisfied..............................☐3
Not satisfied at all..☐4

21. Are you usually in courses (or sections of courses) with many other black students? (MARK ONE)

Yes...☐1
No..☐2
Don't know..☐88

22. Do you feel it is easier or harder for you, as a black student, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Be regarded as a serious student by professors	☐1	☐2	☐3	☐4	☐5
Get help from professors	☐1	☐2	☐3	☐4	☐5
Reschedule exams or due dates for assignments	☐1	☐2	☐3	☐4	☐5
Keep up with coursework	☐1	☐2	☐3	☐4	☐5
Get help from teaching assistants	☐1	☐2	☐3	☐4	☐5
Choose the courses you want to take	☐1	☐2	☐3	☐4	☐5
Get help from tutors	☐1	☐2	☐3	☐4	☐5
Make academics your top priority	☐1	☐2	☐3	☐4	☐5
Get the grades you are capable of	☐1	☐2	☐3	☐4	☐5
Talk to academic counselors about your program	☐1	☐2	☐3	☐4	☐5
Get feedback on how well you are doing in courses	☐1	☐2	☐3	☐4	☐5

23. How satisfied are you with your overall academic performance at this school? (MARK ONE)

Totally satisfied...☐1
More satisfied than dissatisfied..................................☐2
More dissatisfied than satisfied..................................☐3
Not satisfied at all..☐4

Items 24 to 33 refer to your personal/interpersonal experiences at this school.

24. About how often have you experienced the following since you have been at this school? (MARK ONE FOR EACH)

	Frequently (More Than 10 Times)	Occasionally (About 6 to 10 Times)	Rarely (About 1 to 5 Times)	Never
A feeling that you lack control over your life........	☐1	☐2	☐3	☐4
A sense you are different from other students...........	☐1	☐2	☐3	☐4
Racial isolation.............	☐1	☐2	☐3	☐4
Physical abuse...............	☐1	☐2	☐3	☐4
Mental or emotional abuse.......................	☐1	☐2	☐3	☐4
Racial discrimination.........	☐1	☐2	☐3	☐4
Isolation from other students.....................	☐1	☐2	☐3	☐4
Sexual discrimination.........	☐1	☐2	☐3	☐4

25. On or off this campus, do you belong to a(n): (MARK ONE FOR EACH)

	Yes	No
Social fraternity or sorority?..........................	☐1	☐2
Religious club or fellowship?...........................	☐1	☐2
Interest or hobby club (e.g., chess club)?..............	☐1	☐2
Political group?..	☐1	☐2
Service organization (e.g., YMCA volunteer)?............	☐1	☐2
Athletic team (intramural or intercollegiate)?..........	☐1	☐2
Other group? (WRITE IN)________________________________		☐3

26. With whom do you spend most of your free time on campus? (MARK ONE)

Black students...................................... ☐1
Other students...................................... ☐2

Other people (WRITE IN)

____ ☐3

No one, prefer to be alone.......................... ☐4

27. When you are with others during your free time, which of the following things do you usually talk about? (MARK ONE FOR EACH)

	Yes	No
Classes	[__]1	[__]2
Grades	[__]1	[__]2
Sports in general	[__]1	[__]2
Politics	[__]1	[__]2
Current events	[__]1	[__]2
Other friends	[__]1	[__]2
Music	[__]1	[__]2
Future plans	[__]1	[__]2
Family	[__]1	[__]2
Other? (WRITE IN)________________		[__]3

28. Do you live with one or more roommates? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 29

No..[__]2
IF NO, GO TO QUESTION 30

29. Are one or more of your roommates black? (MARK ONE)

Yes...[__]1
No..[__]2

30. Do you live in housing owned or run by the school? (MARK ONE)

Yes...[__]1
No..[__]2

31. Do you know people with whom you can talk easily about personal problems? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 32

No..[__]2
IF NO, GO TO QUESTION 33

32. Who are these people with whom you can talk about your problems? (MARK ONE FOR EACH)

	Yes	No
Students	[__]1	[__]2
Other friends	[__]1	[__]2
Academic advisors at this school	[__]1	[__]2
Parents	[__]1	[__]2
Brothers/sisters	[__]1	[__]2
Spouse (If not married, check here ☐)	[__]1	[__]2
Other people (WRITE IN)________________________________		[__]3

33. Do you feel it is easier or harder for you, as a black student, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Get dates	[__]1	[__]2	[__]3	[__]4	[__]5
Get to know other students	[__]1	[__]2	[__]3	[__]4	[__]5
Speak your mind	[__]1	[__]2	[__]3	[__]4	[__]5
Take on leadership responsibility	[__]1	[__]2	[__]3	[__]4	[__]5
Exercise self control (restraint)	[__]1	[__]2	[__]3	[__]4	[__]5
Set and achieve personal goals	[__]1	[__]2	[__]3	[__]4	[__]5
Show others how talented you are	[__]1	[__]2	[__]3	[__]4	[__]5
Earn praise or recognition for your abilities	[__]1	[__]2	[__]3	[__]4	[__]5
Develop new abilities/skills	[__]1	[__]2	[__]3	[__]4	[__]5
Take responsibility for others	[__]1	[__]2	[__]3	[__]4	[__]5
Learn about yourself	[__]1	[__]2	[__]3	[__]4	[__]5
Get to know people of different races	[__]1	[__]2	[__]3	[__]4	[__]5
Be liked by others for just being yourself	[__]1	[__]2	[__]3	[__]4	[__]5
Talk about personal problems with others	[__]1	[__]2	[__]3	[__]4	[__]5
Have close friends who will probably be friends forever	[__]1	[__]2	[__]3	[__]4	[__]5

Items 34 to 48 refer to your college choice experiences.

34. When you were a high school student, were you actively sought after by colleges? (MARK ONE)

Yes..[__]1
IF YES, GO TO QUESTION 35

No..[__]2
IF NO, GO TO QUESTION 42

35. About how many schools tried to get you to attend their institution?..............................______colleges

36. How did they try to convince you to apply for admission? (MARK ONE FOR EACH)

	Yes	No
Did you or your family receive letters?.................	[__]1	[__]2
Did you or your family receive telephone calls?....................................	[__]1	[__]2
Did you or your family visit schools at the schools' expense?............................	[__]1	[__]2
Were you or your family visited in your home?..	[__]1	[__]2
Did you or your family go to special events on or off campus?......................	[__]1	[__]2
Did you or your family receive personal gifts?..	[__]1	[__]2
Other (WRITE IN)______________________________		[__]3
Other (WRITE IN)______________________________		[__]4

37. How intense was the pressure on you to attend particular schools when you were a high school student? (MARK ONE)

Extremely intense..[__]1
Intense..[__]2
Not very intense...[__]3
Not intense at all.......................................[__]4

38. How much do you agree or disagree with the following statements? (MARK ONE FOR EACH)

	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
The information I got from colleges seeking my enrollment helped me make the right college choice	☐1	☐2	☐3	☐4
The information I got from colleges seeking my enrollment helped prepare me for college	☐1	☐2	☐3	☐4
The information I got from colleges seeking my enrollment was misleading and caused me serious problems	☐1	☐2	☐3	☐4
Being sought after by colleges was a very unpleasant experience	☐1	☐2	☐3	☐4

39. If no school had tried to get you to apply, do you think you would have attended a four-year college? (MARK ONE)

Would definitely have attended a four-year college.................☐1
Would probably have attended a four-year college...................☐2
Would probably not have attended a four-year college...............☐3
Would definitely not have attended a four-year college.............☐4

40. Did you attend a two-year or junior college before attending this school? (MARK ONE)

Yes...☐1
IF YES, GO TO QUESTION 41

No..☐2
IF NO, GO TO QUESTION 48

41. Were you required to attend a two-year or junior college by any of the schools that wanted you to enroll at their institution? (MARK ONE)

Yes...☐1
No..☐2

42. While you were a student in a two-year or junior college, were you actively sought after by other colleges? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 43

No..[__]2
IF NO, GO TO QUESTION 48

43. About how many schools tried to get you to attend their institution?............................ ______colleges

44. How did they try to convince you to apply for admission? (MARK ONE FOR EACH)

	Yes	No
Did you or your family receive letters?.................	[__]1	[__]2
Did you or your family receive telephone calls?..	[__]1	[__]2
Did you or your family visit schools at the schools' expense?................................	[__]1	[__]2
Were you or your family visited in your home?..	[__]1	[__]2
Did you or your family go to special events on or off campus?......................	[__]1	[__]2
Did you or your family receive personal gifts?....................................	[__]1	[__]2

Other (WRITE IN)____[__]3

Other (WRITE IN)____[__]4

45. How intense was the pressure on you to attend particular schools when you were in a two-year or junior college? (MARK ONE)

Extremely intense.......................................[__]1
Intense...[__]2
Not very intense..[__]3
Not intense at all.......................................[__]4

46. How much do you agree or disagree with the following statements? (MARK ONE FOR EACH)

	Strongly Agree	Mostly Agree	Mostly Disagree	Strongly Disagree
The information I got from colleges seeking my enrollment helped me make the right choice of a four-year college............	[__]1	[__]2	[__]3	[__]4
The information I got from colleges seeking my enrollment helped prepare me for this school............................	[__]1	[__]2	[__]3	[__]4
The information I got from colleges seeking my enrollment was misleading and caused me serious problems..................	[__]1	[__]2	[__]3	[__]4
Being sought after by colleges was a very unpleasant experience.......................	[__]1	[__]2	[__]3	[__]4

47. If no school had tried to get you to apply, would you have attended a four-year college? (MARK ONE)

Would definitely have attended a four-year college.................[__]1
Would probably have attended a four-year college...................[__]2
Would probably not have attended a four-year college...............[__]3
Would definitely not have attended a four-year college.............[__]4

48. All things considered, what was the most important factor in your decision to come to this school? (WRITE IN)

____

____

Items 49 to 53 refer to your use of time at this school.

49. About how many total hours in a typical week at school (including weekends) do you spend: (WRITE IN)

Preparing for class?...................................________hours/week

In class and lab?......................................________hours/week

In extracurricular activities?.........................________hours/week

In social activities (include "hanging out")?........________hours/week

Relaxing by yourself?..................................________hours/week

50. About how many classes do you miss in a week for any reason? (WRITE IN)..________classes

51. If you had an extra 60 minutes each day that you could use any way you wanted (other than sleeping), how much of this would you spend: (WRITE IN)

Preparing for class?..________minutes

In class and lab?...________minutes

In extracurricular activities?..________minutes

In social activities (include "hanging out")?...........................________minutes

Relaxing by yourself--not sleeping?.....................................________minutes

52. Overall, how well do you think you manage your time? (MARK ONE)

Much better than other students.........................[__]1
Better than other students..............................[__]2
Worse than other students...............................[__]3
Much worse than other students..........................[__]4

53. Overall, how much help do you get in managing your time (e.g., from faculty, advisors)? (MARK ONE)

A lot of help...[__]1
Some help...[__]2
Not much help...[__]3
No help...[__]4

Items 54 to 68 refer to your financial situation.

54. Have you ever received a scholarship or grant from this school that was tied directly to your performance in one or more courses? (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 55

No..[__]2
IF NO, GO TO QUESTION 60

55. Was the amount of the scholarship or grant ever reduced? (MARK ONE)

Yes...[__]1
No..[__]2

56. Was the scholarship or grant ever taken away?
(MARK ONE)

Yes...[__]1
No..[__]2

57. Have you ever been threatened with a reduction in or
loss of your scholarship or grant? (MARK ONE)

Yes...[__]1
No..[__]2

58. Do you currently receive this scholarship or grant?
(MARK ONE)

Yes...[__]1
No..[__]2

59. Is this a full or partial scholarship?
(MARK ONE)

Full..[__]1
Partial...[__]2

60. Do you work at a paid job, or a job that provides you
with benefits (e.g., meals), at any time during the
academic year? (Include work-study) (MARK ONE)

Yes...[__]1
IF YES, GO TO QUESTION 61

No..[__]2
IF NO, GO TO QUESTION 63

61. What type of job is it?

(WRITE IN)____

62. About how many hours a week do you work
at your job when employed? (WRITE IN)..........______________hours/week

63. How important are each of the following for paying your educational and living costs this term? (MARK ONE FOR EACH)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Your spouse............................	[__]1	[__]2	[__]3	[__]4
(If not married, check here ☐)				
Your parents or other family members......................	[__]1	[__]2	[__]3	[__]4
Alumni of this school (other than family)..............................	[__]1	[__]2	[__]3	[__]4
Your own personal savings...............	[__]1	[__]2	[__]3	[__]4
Other friends..........................	[__]1	[__]2	[__]3	[__]4
Grants/scholarships related to performance in one or more courses......	[__]1	[__]2	[__]3	[__]4
Other grants or scholarships............	[__]1	[__]2	[__]3	[__]4
Your own personal loans................	[__]1	[__]2	[__]3	[__]4
Jobs (during the summer or during the academic year)....................	[__]1	[__]2	[__]3	[__]4

Other____[__]5
(WRITE IN)

64. If you needed an extra year to get your degree, how important would each of the following be for paying your educational and living costs? (MARK ONE FOR EACH)

	Of Greatest Importance	Important	Somewhat Important	Not Important At All
Your spouse	[__]1	[__]2	[__]3	[__]4
(If not married, check here ☐)				
Your parents or other family members	[__]1	[__]2	[__]3	[__]4
Alumni of this school (other than family)	[__]1	[__]2	[__]3	[__]4
Your own personal savings	[__]1	[__]2	[__]3	[__]4
Other friends	[__]1	[__]2	[__]3	[__]4
Grants/scholarships related to performance in one or more courses	[__]1	[__]2	[__]3	[__]4
Other grants or scholarships	[__]1	[__]2	[__]3	[__]4
Your own personal loans	[__]1	[__]2	[__]3	[__]4
Jobs (during the summer or during the academic year)	[__]1	[__]2	[__]3	[__]4

Other______________________________ [__]5
(WRITE IN)

65. Since entering college, how much money have you or your parents had to borrow to pay for expenses directly related to your education? Include only loans from the government or from private (financial) institutions. (MARK ONE)

None.................................[__]11
Less than $1,000.....................[__]12
$1,000-$3,000........................[__]13
$3,001-$5,000........................[__]14

$5,001-$7,000........................[__]21
$7,001-$9,000........................[__]22
$9,001-$11,000.......................[__]23

$11,001-$15,000......................[__]31
$15,001-$19,000......................[__]32
$19,001-$23,000......................[__]33
$23,001-$27,000......................[__]34

$27,001-$31,000......................[__]41
$31,001-$35,000......................[__]42
$35,001 or more......................[__]43

66. About how much money do you have per month--AFTER EXPENSES FOR YOUR ROOM, FOOD, TUITION, FEES, AND COURSE-RELATED BOOKS? (MARK ONE)

None..
Less than $50...[__]11
$50-$100..[__]12
$101-$150...[__]13
....[__]14

$151-$250...
$251-$350...[__]21
$351-$450...[__]22
$451-$550...[__]23
....[__]24

$551-$650...
$651-$750...[__]31
$751 or more..[__]32
....[__]33

67. Is the amount of money you have per month after college expenses adequate? (MARK ONE)

Yes...
No..[__]1
....[__]2

68. Do you feel it is easier or harder for you, as a black student, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Get a part-time job................	[__]1	[__]2	[__]3	[__]4	[__]5
Borrow money for school............	[__]1	[__]2	[__]3	[__]4	[__]5
Get a summer job...................	[__]1	[__]2	[__]3	[__]4	[__]5

Items 69 to 80 refer to your health.

69. How would you describe your health, in general? (MARK ONE)

Excellent...
Good..[__]1
Fair..[__]2
Poor..[__]3
....[__]4

70. Do you have any physical deformities or handicaps? (MARK ONE)

Yes...
No..[__]1
....[__]2

71. To what extent has each of the following bothered you since September? (MARK ONE FOR EACH)

	Greatly Bothered	Bothered	Slightly Bothered	Not at All Bothered
Colds	☐1	☐2	☐3	☐4
Sleeplessness or insomnia	☐1	☐2	☐3	☐4
Eating problems (e.g. excessive over-eating, starving yourself)	☐1	☐2	☐3	☐4
Extreme tiredness, exhaustion	☐1	☐2	☐3	☐4
Dental problems	☐1	☐2	☐3	☐4
Other (WRITE IN)				☐5

72. Since September, how many days of classes did you miss due to these conditions? (WRITE IN).................__________days

73. Have you had any injuries since September? By injuries, we mean things like broken bones, sprains, and muscle tears. (MARK ONE)

Yes...☐1
IF YES, GO TO QUESTION 74

No..☐2
IF NO, GO TO QUESTION 78

74. To what extent have you been bothered by these injuries? (MARK ONE)

Greatly bothered..☐1
Bothered..☐2
Slightly bothered...☐3
Not at all bothered.......................................☐4

75. How many days of classes did you miss due to injuries since September? (WRITE IN).............__________days

76. Did you ever feel pressure to ignore these injuries or just forget about them? (MARK ONE)

Yes...☐1
IF YES, GO TO QUESTION 77

No..☐2
IF NO, GO TO QUESTION 78

77. How intense was the pressure on you to ignore these injuries or to just forget about them? (MARK ONE)

Extremely intense..[__]1
Intense..[__]2
Not very intense...[__]3
Not intense at all...[__]4

78. How satisfied are you with the medical care or treatment you have received from your school? (MARK ONE)

Totally satisfied..[__]1
More satisfied than dissatisfied...[__]2
More dissatisfied than satisfied...[__]3
Not satisfied at all...[__]4
Have not needed medical care while at school...............................[__]5

79. Do you feel it is easier or harder for you, as a black student, to do the following? (RATE EACH ITEM)

	Much Easier	Easier	No Difference	Harder	Much Harder
Keep in good physical shape........	[__]1	[__]2	[__]3	[__]4	[__]5
Avoid drugs	[__]1	[__]2	[__]3	[__]4	[__]5
Avoid alcohol.....................	[__]1	[__]2	[__]3	[__]4	[__]5
Get medical treatment.............	[__]1	[__]2	[__]3	[__]4	[__]5

80. In general, how satisfied are you with your life? (MARK ONE)

Totally satisfied..[__]1
More satisfied than dissatisfied...[__]2
More dissatisfied than satisfied...[__]3
Not satisfied at all...[__]4

Items 81 to 88 refer to your general background.

81. What is your year of birth?..1 9 _ _

82. What year did you enroll in this school?........................1 9 _ _

83. What year did you first enter (any) college?...................1 9 _ _

84. What is your gender? (MARK ONE)

Male..[__]1
Female..[__]2

85. Are you a U.S. citizen? (MARK ONE)

Yes...[__]1
No..[__]2

86. To the best of your memory, what was your grade average in high school? (MARK ONE)

A or A+...[__]1
A-..[__]2
B+...[__]3
B...[__]4

B-..[__]5
C+...[__]6
C...[__]7
C- or below...[__]8

Don't know..[__]88

87. To the best of your memory, what was your total score on the Scholastic Aptitude Test (SAT)? (MARK ONE)

Did not take SAT......................................[__]1

1401 - 1600...[__]2
1201 - 1400...[__]3
1001 - 1200...[__]4

801 - 1000...[__]5
601 - 800...[__]6
401 - 600...[__]7
400 or below...[__]8

Don't know..[__]88

88. To the best of your memory, what was your total score on the American College Testing Program (ACT)? (MARK ONE)

Did not take ACT...[__]1

33-36...[__]2
29-32...[__]3
25-28...[__]4

21-24...[__]5
17-20...[__]6
13-16...[__]7
12 or below...[__]8

Don't know...[__]88

Items 104 - 108 ask about your parents. If you think of other adults more as your parents than your biological parents, answer the questions for those adults.

89. Approximately what was your parents' total income during the past year, before taxes, so far as you know? (MARK ONE)

Less than $5,000...[__]11
$5,000-$10,000...[__]12
$10,001-$20,000...[__]13
$20,001-$30,000...[__]14
$30,001-$40,000...[__]15

$40,001-$50,000...[__]21
$50,001-$60,000...[__]22
$60,001-$70,000...[__]23
$70,001-$80,000...[__]24
$80,001 or more...[__]25

90. Describe the most recent job held by your father. If retired, deceased, or unemployed, indicate the last job held.

Type of job (WRITE IN)____

Typical work activities (WRITE IN)____

Never Worked...[__]87
Don't Know...[__]88

91. Describe the most recent job held by your mother. If retired, deceased, or unemployed, indicate the last job held.

Type of job (WRITE IN)____

Typical work activities (WRITE IN)____

Never Worked...[__]87
Don't Know...[__]88

92. What was the highest level of education your father completed? (MARK ONE)

Less than high school graduation..............................[__]1

High school graduation only...................................[__]2

Vocational, trade, or business school after high school.......[__]3

College program--Less than four- or five-year degree (including two-year degree)..........[__]4

College program--Finished four- or five-year degree...........[__]5

College program--Master's degree, Ph.D., M.D., or other advanced professional degree..........[__]6

Don't Know..[__]88

93. What was the highest level of education your mother completed? (MARK ONE)

Less than high school graduation..............................[__]1

High school graduation only...................................[__]2

Vocational, trade, or business school after high school.......[__]3

College program--Less than four- or five-year degree (including two-year degree)..........[__]4

College program--Finished four- or five-year degree...........[__]5

College program--Master's degree, Ph.D., M.D., or other advanced professional degree..........[__]6

Don't Know..[__]88

Item 94 gives you space to say what you would like to say.

94. Are there things about your life at college you would like to tell us that we didn't ask about? If so, what are they?

Appendix D

Self–Description Inventories

National Study of Intercollegiate Athletes

SELF-DESCRIPTION INVENTORIES

THE ITEMS THAT FOLLOW EXPLORE YOUR FEELINGS AND ATTITUDES IN A VARIETY OF AREAS

Please indicate your agreement or disagreement with each of the statements below. Choose the response that best describes your feelings about each statement.

		Disagree Strongly	Disagree More Than Agree	Agree More Than Disagree	Agree Strongly
1.	I feel that I'm a person of worth at least on an equal plane with others..........................	____	____	____	____
2.	I feel I have a number of good qualities.........................	____	____	____	____
3.	All in all, I am inclined to think of myself as a failure......	____	____	____	____
4.	I am able to do things as well as most people...............	____	____	____	____
5.	I feel that I do not have much to be proud of...............	____	____	____	____
6.	I take a positive attitude towards myself....................	____	____	____	____
7.	On the whole, I'm satisfied with myself......................	____	____	____	____
8.	I wish I could have more respect for myself................	____	____	____	____
9.	I certainly feel useless at times.............................	____	____	____	____
10.	At times I think I am no good at all...........................	____	____	____	____

Check the response for each statement which best describes how often you felt or behaved this way--during the past week.

DURING THE PAST WEEK:	Rarely or None of the Time (Less Than 1 Day)	Some or a Little of the Time (1-2 Days)	Occasionally or a Moderate Amount of Time (3-4 Days)	Most or All of the Time (5-7 Days)
1. I was bothered by things that don't usually bother me......................	____	____	____	____
2. I did not feel like eating; my appetite was poor......	____	____	____	____
3. I felt that I could not shake off the blues even with help from my family or friends...............	____	____	____	____
4. I felt that I was just as good as other people......	____	____	____	____
5. I had trouble keeping my mind on what I was doing..	____	____	____	____
6. I felt depressed.........	____	____	____	____
7. I felt that everything I did was an effort........	____	____	____	____
8. I felt hopeful about the future...................	____	____	____	____
9. I thought my life had been a failure................	____	____	____	____
10. I felt fearful...........	____	____	____	____
11. My sleep was restless.....	____	____	____	____
12. I was happy..............	____	____	____	____
13. I talked less than usual....................	____	____	____	____

		Rarely or None of the Time (Less Than 1 Day)	Some or a Little of the Time (1-2 Days)	Occasionally or a Moderate Amount of Time (3-4 Days)	Most or All of the Time (5-7 Days)
	DURING THE PAST WEEK: (continued)				
14.	I felt lonely.............	_____	_____	_____	_____
15.	People were unfriendly....	_____	_____	_____	_____
16.	I enjoyed life............	_____	_____	_____	_____
17.	I had crying spells.......	_____	_____	_____	_____
18.	I felt sad................	_____	_____	_____	_____
19.	I felt that people disliked me...............	_____	_____	_____	_____
20.	I could not get "going"...	_____	_____	_____	_____

A number of statements which people have used to describe themselves are given below. Read each statement and then check the response that indicates how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

		ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
1.	I feel pleasant...........	____	____	____	____
2.	I feel nervous and restless..................	____	____	____	____
3.	I feel satisfied with myself....................	____	____	____	____
4.	I wish I could be as happy as others seem to be......	____	____	____	____
5.	I feel like a failure.....	____	____	____	____
6.	I feel rested.............	____	____	____	____
7.	I am "calm, cool and collected"................	____	____	____	____
8.	I feel that difficulties are piling up so that I cannot overcome them......	____	____	____	____
9.	I worry too much over something that really doesn't matter............	____	____	____	____
10.	I am happy................	____	____	____	____
11.	I have disturbing thoughts..................	____	____	____	____
12.	I lack self-confidence................	____	____	____	____
13.	I feel secure.............	____	____	____	____
14.	I make decisions easily....................	____	____	____	____
15.	I feel inadequate.........	____	____	____	____
16.	I am content..............	____	____	____	____

		ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
17.	Some unimportant thought runs through my mind and bothers me................	_____	_____	_____	_____
18.	I take disappointments so keenly that I can't put them out of my mind......................	_____	_____	_____	_____
19.	I am a steady person....................	_____	_____	_____	_____
20.	I get in a state of tension or turmoil as I think over my recent concerns and interests.............	_____	_____	_____	_____

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On the following pages are statements about how different events happen to you. Below each statement there is a scale representing a range of responses from strongly agree to strongly disagree. Read each statement and select an answer which best represents the extent to which you agree or disagree with the statement. Make a circle around the number which corresponds to your answer choice. Try to choose #1 or #6, the extremes, whenever possible. There are no *right* or *wrong* answers--we want to know what *you* believe in each case. Be sure to answer every question.

1. Whether or not I get to be a leader depends mostly on my ability.

   1. STRONGLY AGREE
   2. AGREE
   3. SLIGHTLY AGREE
   4. SLIGHTLY DISAGREE
   5. DISAGREE
   6. STRONGLY DISAGREE

2. Whether or not I get into a car accident depends mostly on how good a driver I am

   1. STRONGLY AGREE
   2. AGREE
   3. SLIGHTLY AGREE
   4. SLIGHTLY DISAGREE
   5. DISAGREE
   6. STRONGLY DISAGREE

3. When I make plans, I am almost certain to make them work.

   1. STRONGLY AGREE
   2. AGREE
   3. SLIGHTLY AGREE
   4. SLIGHTLY DISAGREE
   5. DISAGREE
   6. STRONGLY DISAGREE

4. I am usually able to protect my personal interests.

   1. STRONGLY AGREE
   2. AGREE
   3. SLIGHTLY AGREE
   4. SLIGHTLY DISAGREE
   5. DISAGREE
   6. STRONGLY DISAGREE

5. When I get what I want, it's usually because I worked hard for it.

   1. STRONGLY AGREE
   2. AGREE
   3. SLIGHTLY AGREE
   4. SLIGHTLY DISAGREE
   5. DISAGREE
   6. STRONGLY DISAGREE

6. My life is determined by my own actions.

1. STRONGLY AGREE
2. AGREE
3. SLIGHTLY AGREE
4. SLIGHTLY DISAGREE
5. DISAGREE
6. STRONGLY DISAGREE

7. To a great extent my life is controlled by accidental happenings.

1. STRONGLY AGREE
2. AGREE
3. SLIGHTLY AGREE
4. SLIGHTLY DISAGREE
5. DISAGREE
6. STRONGLY DISAGREE

8. When I get what I want, it's usually because I'm lucky.

1. STRONGLY AGREE
2. AGREE
3. SLIGHTLY AGREE
4. SLIGHTLY DISAGREE
5. DISAGREE
6. STRONGLY DISAGREE

9. I have often found that what is going to happen will happen.

1. STRONGLY AGREE
2. AGREE
3. SLIGHTLY AGREE
4. SLIGHTLY DISAGREE
5. DISAGREE
6. STRONGLY DISAGREE

10. Whether or not I get into a car accident is mostly a matter of luck.

1. STRONGLY AGREE
2. AGREE
3. SLIGHTLY AGREE
4. SLIGHTLY DISAGREE
5. DISAGREE
6. STRONGLY DISAGREE

11. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.

1. STRONGLY AGREE
2. AGREE
3. SLIGHTLY AGREE
4. SLIGHTLY DISAGREE
5. DISAGREE
6. STRONGLY DISAGREE

12. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.

    1. STRONGLY AGREE
    2. AGREE
    3. SLIGHTLY AGREE
    4. SLIGHTLY DISAGREE
    5. DISAGREE
    6. STRONGLY DISAGREE

13. I feel like what happens in my life is mostly determined by powerful people.

    1. STRONGLY AGREE
    2. AGREE
    3. SLIGHTLY AGREE
    4. SLIGHTLY DISAGREE
    5. DISAGREE
    6. STRONGLY DISAGREE

14. Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.

    1. STRONGLY AGREE
    2. AGREE
    3. SLIGHTLY AGREE
    4. SLIGHTLY DISAGREE
    5. DISAGREE
    6. STRONGLY DISAGREE

15. My life is chiefly controlled by powerful others.

    1. STRONGLY AGREE
    2. AGREE
    3. SLIGHTLY AGREE
    4. SLIGHTLY DISAGREE
    5. DISAGREE
    6. STRONGLY DISAGREE

16. People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.

    1. STRONGLY AGREE
    2. AGREE
    3. SLIGHTLY AGREE
    4. SLIGHTLY DISAGREE
    5. DISAGREE
    6. STRONGLY DISAGREE

17. Getting what I want requires pleasing those people above me.

1. STRONGLY AGREE
2. AGREE
3. SLIGHTLY AGREE
4. SLIGHTLY DISAGREE
5. DISAGREE
6. STRONGLY DISAGREE

18. In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.

1. STRONGLY AGREE
2. AGREE
3. SLIGHTLY AGREE
4. SLIGHTLY DISAGREE
5. DISAGREE
6. STRONGLY DISAGREE

Appendix E

Respondent Forms

National Study of Intercollegiate Athletes

AMERICAN INSTITUTES FOR RESEARCH

Consent to Participate

The American Institutes for Research (AIR) is conducting a study of intercollegiate athletics for the Presidents Commission of the National Collegiate Athletic Association (NCAA). AIR will collect information from student-athletes and other students at 42 colleges and universities. The study will contribute to our understanding of college life.

AIR is asking you to participate in the study by

- signing a release form giving AIR permission to obtain copies of your high school and college transcripts and your ACT or SAT scores
- filling out a questionnaire for an AIR staff member or responding to questions in an interview with an AIR staff member (AIR will ask you to do one or the other.)
- providing names, addresses, and phone numbers that might be used to get a message to you during the next year or so

By signing below, you agree to participate in the study and indicate that

- your role in the study was explained to you and you understand it
- you had a chance to ask questions about the study
- you understand that your name and responses are confidential information and will never be released by AIR

Name (please print)______________________________

Signature______________________________

Local Address______________________________

____

Local phone____________________

Date____________________

PALO ALTO OFFICE
1791 ARASTRADERO ROAD
P.O. BOX 1113
PALO ALTO, CA 94302
(415) 493-3550

AMERICAN INSTITUTES FOR RESEARCH

Permanent Address

We would like to be able to contact you in future years to find out more about how college has affected your life. Please give us two addresses and phone numbers where we might be able to get a message to you during the next year or so. Give us your permanent address and your parents' address or the address of a friend or relative who will always know how to get in touch with you.

Your name (please print)____________________________________

Permanent address____________________________________

____

Phone (with area code)__________________________

Other person to contact____________________________________

Address____________________________________

____

Phone (with area code)__________________________

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PALO ALTO, CA 94302
(415) 493-3550

AMERICAN INSTITUTES FOR RESEARCH

Permission to Release Transcripts

I authorize «institution» to provide copies of my high school and college transcripts and my ACT or SAT scores to the American Institutes for Research (AIR) for the study of intercollegiate athletics. I understand that AIR will use the information for research purposes only and will destroy the transcripts at the end of the study.

Name (please print)______________________________

Signature______________________________

Local Address______________________________

____

Student ID Number____________________

Date____________________

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